

SOCIALIST SIXTH OF THE WORLD

by

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With illustrations by

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To
MY WIFE

IMPORTANT FOREWORD WRITTEN ON NOVEMBER SECOND, 1939

I REGRET that this book was not written and published six months earlier. Had that been the case I might have hoped that it would perhaps have served some part, however small, in helping our own country to understand Russia, and, by understanding, to have brought nearer the possibility of Anglo-Russian friendship. With Russian friendship, consummated in a pact for collective security, we should now be spared the terrible tragedy that confronts us. It was, however, not to be. Greater forces were fashioning our destiny. And yet the need for Anglo-Soviet co-operation is not less but far greater today. And it is with that aim that I offer this book to the British public now, in the hope that it may help to shorten the bitterness and suffering which this war is bound to bring.

I know only too well the deep-rooted hostility and prejudice that exist among certain strata of our people towards Russia. I would beg them to lay those feelings aside for a brief space while they examine what this book has to say, so that perhaps a fairer picture and a deeper understanding may take possession of their minds.

The book was ready for the printer and the final proofs corrected just prior to the outbreak of the war. During the enforced delay in its publication, I have re-read it in the light of our present situation. Apart from the Epilogue there is little I would add to or subtract from it, though had it been written today the style would doubtless have been less leisurely.

Because, however, of what has happened in the last two months, I would invite the reader to turn to the Epilogue first and familiarize himself with the brief account it contains of the Soviet's struggle for peace during the twenty-two years of its existence.

If this book should serve to prevent one day, or one fraction of a day, of unnecessary bloodshed and slaughter by helping to ease the passage of those changes that I believe are necessary in our life, and which are bound at length to come, then it will more than have fulfilled any aims or hopes I may have entertained concerning it.

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ACKNOWLEDGMENTS AND THANKS

THE LIGHTS and side-lights relative to any study of the Soviet Union are too numerous to enable me to offer individual thanks to persons in the U.S.S.R., or out of it, who have helped me; and to the writers of books, journals, or monographs which have assisted or stimulated me in one way or another in the preparation of this book. If here I mention the names, in alphabetical order, of some authors upon whom I have drawn, either for scientific information or for stimulating modes of presentation, it is naturally not that I value them in the order thus presented or that my debt is confined to these alone. Far from it. Let this selection then suffice.

Batsell, W. R., "Soviet Rule in Russia"; Brontman, L., "On the Top of the World"; Coates, W. P. and Z. K., "From Tsardom to the Stalin Constitution"; Crowther, J. G., "Science in the Soviet Union", "Soviet Science"; Fleming, R. M., "Soil and Civilization in Russia"; Friedman, E. M., "Russia in Transition"; Frolov, Y. P., "Pavlov and His School"; Haines, A. J., "Health Work in Soviet Russia"; Hecker, J. F., "Moscow Dialogues", "The Communist Answer to the World's Needs", "Religion and Communism"; Hubbard, L. E., "Soviet Money and Finance"; Kantorovich, V., "Soviet Sakhalin"; King, Beatrice, "Changing Man: The Education System of the U.S.S.R."; Lee, H., "Twenty Years After"; Litvinov, Maxim, "Against Aggression"; Macartney, C. A., "National States and National Minorities"; Pritt, D. N., "Light on Moscow"; Sloan, P., "Russia Without Illusions", "Soviet Democracy"; Ward, H. F., "In Place of Profit"; Webb, S. and B., "Soviet Communism: A New Civilization?" also the Postscript "Soviet Communism: A New Civilization" (without the Question Mark). "U.S.S.R. in Construction".

My main debt, as to literature, after the comprehensive

and constructive books—such as those by Mr. and Mrs. Webb—is due to reports, scientific monographs, and the mass of ephemeral but extremely valuable literature which daily pours out of Russia itself, with detailed descriptions of various cultural achievements and of actual workings of mines and oilfields, collective farms and factories, together with statistics of fulfilment of Five-Year Plans, so much of it self-illuminating and self-checking when examined over a sufficient stretch of years.

I would acknowledge also my debt to the London Library of the Society of Cultural Relations with the U.S.S.R. for the help they have constantly given me.

Chiefly would I thank Mr. A. T. D'Eye, of Balliol College, Oxford, who has placed at my disposal his time and his knowledge, not only of the Soviet Union, but also of economics and political theory, and of constitutional history and practice in general. His criticisms, advice, suggestions, and information have proved invaluable, and placed me under a debt I can never repay.

Chiefly, too, I would thank my wife, not only for her acute and commonsense criticism and suggestions, but also for the maps and little human sketches which point the moral and adorn the tale where the tale may be dull or the moral obscure. And I thank my secretary, Mrs. Crowe, for her accuracy and her unfailing willingness at all hours of day and night to type and retype manuscripts and manage papers.

PREFACE

1. **T**HE AIM of this book can be stated briefly. It attempts to explain in simple non-technical terms a great experiment in a new order of society. Its appearance today is the less inopportune, because suspicion still exists on both sides between two great peoples. The need for wider understanding is paramount.

2. The experiment which is being worked out on a sixth of the earth's surface is founded on a new organization of economic life, based on clearly defined principles which are thoroughly understood and gladly accepted. These principles, now on trial, differ as far as east from west from our own competitive system of every man for himself and devil take the hindmost, with the profit-making motive as the chief incentive; men being used as means and not ends, with all the consequential exploitation of the mass of the people that inevitably follows.

Our system lacks moral basis. It is only justified on the grounds that no alternative exists. It gives rise, when Christian men and women accept it and acquiesce in it, to that fatal divergence between principles and practice of Christian people, which is so damning to religion, and which found its sternest critic in Christ Himself. The gap between Sunday, with its sermons on brotherhood, co-operation, seeking of others' good, and Monday, with its competitive rivalries, its veiled warfares, its concentration upon acquisition, its determination to build up one's own security, becomes so wide that many of the better men and women of today remain outside the Churches altogether. Hypocrites they will not be. The young especially, with their modern passion for sincerity, are in open revolt.

Such is the moral aspect of contemporary economic society. Its scientific aspect is the wholly irrational wastage of wealth, the artificially induced shortage, the poverty amidst plenty, which is as patently foolish as it

is grossly immoral. Frustration of science is the counterpart of denial of morals.

Folly culminates in wastage of human material. Stunted and narrow lives are the result. The upshot is pitiful and dangerous on a twofold count. It thwarts the individual by denying to him the thrill and satisfaction of a developing human life. It robs society by leaving uncultivated and unutilized whole ranges of potential ability.

Slumps and booms, unemployment and mis-employment, the dole and the multi-millionaire, the scales weighted for financiers and against the workers, frustrate society and produce strains and stresses whose logical conclusion is war.

3. In opposition to this view of the organization of economic life is that of the Soviet Union, where co-operation replaces competitive chaos and a Plan succeeds the riot of disorder. The emphasis is different. The community rather than the self-seeking individual stands in the centre of the picture. The welfare of the whole and of each individual within it replaces, as the ruling factor, the welfare of a select class or classes. The elimination of the profit-seeking motive makes room for the higher motive of service. The rational organization of production and distribution of wealth welcomes science as an ally and transfers the emphasis from scarcity to abundance.

4. A new attitude towards human life is the natural counterpart of the new economic morality. Individuals, all individuals, become ends as well as means. The development of the human potentialities of each individual receives fullest opportunity and encouragement, and leads to a new humanism. The mass of the people are inspired to play a creative role in life, and culture receives a fresh stimulation. The cultural heritage of the past is treasured and reverenced and becomes the spring-board for the future. Provided that no war intervenes to wreck the growth, the removal of economic shortage, and the substitution of plan for chaos, promise to open up new avenues of freedom, liberty, and creative personality.

5. The method of this book is as simple as its aim.

The author is not so vain as to imagine that his own experiences in life are unique, or that the problems which life propounds to him are felt by him alone. As he states them he feels that he is merely putting perhaps into clearer words what many others feel and experience. The personal biography with which the book opens, whilst endeavouring to do this, may serve the further useful purpose of providing a picture of the personal bias from which no book is free. The autobiographical section will at least explain the interest in economic and social affairs, and the unashamed sympathy with the "underdog"; whilst the story of the technical training may give some guarantee of a reasonably sound judgement in technical matters. In case some should feel that this technical training has led to undue emphasis, or emphasis in too great detail, upon the economic aspects of the new order, it is well to remember that without such an economic basis the new order would rest on insecure foundations. Only on a sound base can a noble edifice arise.

The reader, however, if he so wishes, may skip the economic section in Book III and proceed, without break in continuity, to the more human aspects of the new order in Book IV.

6. It is the moral impulse of the new order, indeed, and its human consequences, which constitute the greatest attraction and present the widest appeal. The sections which deal with these therefore form the longest and most important sections of the book.

Of any system we may appropriately ask, as the primary question, either from the moral or scientific point of view, How does this affect the life of the mother and child? How, that is, does it affect life at its very source and in its most impressionable stages? From that preliminary question, we may proceed through appropriate stages to inquire how it affects the community as a whole, and the relation of community with community, nation with nation, race with race. Finally, we may ask what hope it holds out for a harmonious international system. These human consequences and values are to the writer indissolubly bound up with Christian religion and tradition.

The final chapter examines this connection and explains why, alike from a Christian, a scientific, and a technical point of view, he finds absorbing interest and much encouragement in the Soviet experiment.

7. Finally, there is need to guard against a too rosy and optimistic view of life in the Soviet Union. My own approach in this book is from the sympathetic side. I ask in the first place for a sympathetic understanding of the problem. I lay stress on the successes and the good things of the experiment. There are shadows as well as lights, and I am well, and oftentimes painfully, aware of them. But if I have said less of the defects or lack of success, it is chiefly because other writers have already (and with over-emphasis) done the task for me; and because I feel that this over-emphasis and concentration upon defects, whilst ignoring the massive moral and material achievements, accounts for the unsympathetic attitude of many who should, and if they knew more would, welcome the experiment and learn from it—an attitude not only unfortunate for themselves, but productive in many respects of the very shadows we deplore.

With sympathy and understanding at the outset, civil war on the great scale in the early years of the Revolution might have been prevented, and the war of intervention, on which England spent a hundred million pounds, averted.

Unfortunately, from the very first our popular view of the Soviet experiment has been, as many come slowly to recognize, sadly warped. An antagonism has been created which erects a definite barrier against the truth on the Soviet side as well as ours.

Mutual distrust and suspicion still exist. This book seeks to remove them and replace them with an attitude of tolerance and sympathy. As is so psychologically true in our dealings with children or individuals in general, so also with the Soviet order: it is by seeing what is good, and welcoming it, that we shall be more likely to change what is bad, both in ourselves, and in our friends of the U.S.S.R.

I would particularly stress the cautions outlined in this final section of the Preface.

BOOK I

APOLOGY AND EXCUSE

- 1 Excursus and Autobiography
 - (i) Bourgeois Boyhood
 - (ii) Apprenticeship to Life
 - (iii) Parish Priest
- 2 Rise and Decline of Capitalism
 - (i) Nineteenth-century Evolution
 - (ii) Nineteenth-century Consummation
 - (iii) Twentieth-century Frustration
- 3 The Moral Denial of Christianity
 - (i) Denial of Justice
 - (ii) Denial of Freedom
 - (iii) Denial of Creative Living
 - (iv) Denial of Fellowship

I. EXCURSUS AND AUTOBIOGRAPHY

WE CALL our Western economic and social order Christendom. It is hard to justify the term. Looked at through the eyes of artisan, engineer, employer of labour, or Christian minister, and I have been all four, I see it rather as an order flagrantly unChristian and palpably unscientific—an order which, if it possessed any substantial understanding of what Christian ethics really involved, or suspected its practical and immediate application, would dismiss it as a dream, or, like Hitler and Rosenberg, suppress it as a menace.

Our order is neither Christian nor scientific, and I find it hard to say in which capacity, as Christian or scientist, it offends me the more. When I read, as a headline in the *Observer*, not long before the war:—

POLAND'S GOOD HARVEST

Severe Blow to Recovery

I recalled the words of an American Professor of Agriculture after seeing ten million acres of cotton ploughed in and five million pigs slaughtered: "If this will bring national prosperity, then I have wasted my life." The thing is monstrous. An age of science has given place to an age of frustration of science; and the frustration is none the less deadly, but the more so, now that a decade of restriction preventing plenty succeeds a former decade of destruction, when for one rare moment we had permitted our productive machine to show its paces. In no sense is our economic order scientific.

Still less is it Christian. Placing a premium on selfish motives, it inflames the acquisitive instinct, tolerates hunger amidst plenty, and smashes human lives. While half our population is undernourished and a sixth of our children disastrously underfed—the words are those of Sir John Boyd Orr—machines, save in time of war or war scare, stand idle, and many hundreds of thousands of workers,

capable of producing food, clothing, and housing in abundance, drag out a miserable existence of enforced and demoralizing idleness. Our order has for its cornerstone the motive of industrial gain and the method of ruthless competition. Production of things men need, and of things they had better do without, is planless and irresponsible, resulting in grave inequalities, where immense wealth flaunts itself amidst squalor, and poverty breeds hatred and contempt.

If this is strongly said, it is because it is warmly felt and needs the saying. Years serve only to increase the challenge. Hardness develops into ruthlessness and brutality. The situation worsens.

* * * * *

Naturally, like most men with any pretensions to an interest in moral problems and their human settings, I have read, studied, and travelled; seeking out and examining various attempted solutions and national experiments. Germany had long been the centre of interest, and China too. Then Russia crossed the path like a brilliant meteor, and flung down its extraordinary challenge. Most arresting, and calling for close and continuous study, was its programme, designed to replace private profit for gain as the driving force for industrial production, by the motive of service to the community; and to give to every man, woman, and child, regardless of colour, race, or language, and in a Union extending over a sixth of the globe, equal opportunity for remunerative work and abundant leisure, equal education in childhood and youth, and equal security in sickness and old age.

Here was something wholly new. Here was something, laid down as a programme by men at the head of affairs in a great nation, which we as Christians had been told by our own men of affairs was pleasant as an idealistic dream, and might even happen in a far-distant future, but was wholly impracticable in the world as it is today, and would be fatal if applied.

In profession, at least, this Soviet programme regards men as persons and plans for them as brothers. There is

something singularly Christian and civilized in this attitude and intention. For if the earth is God's, and if men are really His children, it must be a sorry sight to Him to see on one side of His table those who surfeit, and on the other those who starve, whether the fare is thought of in terms of food or culture or the beauties and decencies of life. Still less can He look with pleasure on the harshness and cruelties of the rush for gain, or the ruthless maintenance of vested interests. Russia's programme at least befits a world of brothers. Or if, to put the Christian conception of human life in another, though a kindred way, community is the essential truth about humanity, rejecting community, we fly in the face of reality every day, with inevitable frustration as the result of our blindness and ignorance.

* * * * *

So much for Russia's programme; but what of Russia's performance? Men paint the picture of Russia in tones of raven black or snowy white, as a veritable Kingdom of God on earth, or as the realm of anti-Christ, leading us to believe on the one hand that it must convert the world tomorrow, or, on the other hand, meet imminent collapse.

Sometimes the tones of black and white appear in the same persons at different stages of their observation. Dr. E. J. Dillon, for example, that far-travelled man and excellent observer, whose death in 1933 was an incalculable loss to students of foreign affairs, and who had served as Professor in Kharkoff at a Russian University, and edited, before the Revolution, *Odesskia Novosti*, a Russian daily paper, and drew an appalling picture of life under the Tsars, left the Soviet Union with the words: "In the Bolshevik movement there is not the vestige of a constructive or social idea." Visiting Russia again out of sentimental curiosity ten years later, in 1928, receiving "no favours", as he says, "from anyone in Sovietdom", where his life's savings had been confiscated, and where he had been indirectly deprived by the Soviet order of "one near and dear, whose loss all the money in the world

cannot make good", he exclaims in amazement: "Bolshevism is no ordinary historic event. It is one of the vast world-cathartic agencies to which we sometimes give the name of Fate, which appear at long intervals to consume the human tares, and clear the ground for a new order of men and things."

We read of Russia's impending collapse, and then of her amazing success. Nothing in this connexion is more illuminating than to read in succession back issues of *The Times* from 1918 onwards, and count the eager anticipations of the imminent end of Bolshevism, and then the reluctant semi-admission of its gathering strength.

Prolonged experience of Russian news taught the careful reader to discount these prophets of collapse. Russia, like most European and Asiatic countries, abounds in abuses; decades will elapse before dishonesty and peculation, and even greater crimes, keenly felt by those who believe in truth and mercy and justice and tolerance as absolute values, are completely rooted out. Russia has inherited an evil tradition, not to be eradicated in a day. Habits change less speedily than governments.

But long years have now passed since Russia's inherited evils, or the evils imported by the present regime, seriously threatened the stability of the State or suggested the possible breakdown of the new order. Books which paint a picture of Soviet Russia so appalling that readers exclaim "Can it last?" must be read with the utmost caution.

It is a long time, for example, as time goes in a country of so rapid a growth as Russia, since Mr. Eugene Lyons lived in the Soviet Union and wrote "Assignment in Utopia". Without repeating the criticisms of those who knew Mr. Lyons in America or Russia, it will suffice to place beside his brilliant but emotional journalism the experience of journalists better equipped than he; and even more important to recall and record the calculated experience of experts in many fields of activity, men not only living in Russia, but engaged in active Russian work.

Four years after Lyons left Moscow I read these words of Maurice Hindus, himself bred and born in Russia and for long critical of the regime, words written within six

months of another of *The Times'* gloomy and wishful prophecies: "Collective agriculture in Russia has definitely succeeded, and the land will never suffer famine again and never lose a war through hunger."

In the main, however, I have been less influenced by brilliant journalists, on one side or another, than by substantial facts, by the things I have seen in Russia with my own eyes, and by detached studies and monographs of actual engineering experts, scientists, students, or teachers whom I have met either here or in Russia itself, whom I know personally, and whose word and judgement I can trust.

* * * * *

I happened, for example, to get in touch with a British engineering expert, who had worked as chief engineer in the electrical department of the Metro-Vickers plant in Sheffield, and who had gone to the Soviet Union in the very year that Mr. Lyons had left it, and had remained there until 1937 as consulting engineer in the Moscow Dynamo Works, a typical Soviet factory employing 8,000 people and manufacturing equipment for electric railways, buses, and tramways. In addition to what he otherwise told me, his conclusions were published at length in the *Manchester Guardian* of February 19th, 1938.

Progress in the electrical industry depends, as he rightly explains, and as every engineer knows, almost entirely upon the creation of a skilled and reliable technical staff. That again depends upon the prior training of youth, upon education in all its grades, upon the character of the whole community, and upon confidence in the new order and willingness to work heartily in a planned production for the benefit of the community.

Success in creating a skilled staff has been, in the view of this British expert, singularly great. The numbers, quality, and training of Russia's young engineers and managers guarantee an immensely accelerated technical progress. Responsible engineers in the Dynamo Works are all young—from twenty to thirty—and have received their training in the new Soviet technical school. These

engineering graduates now pour annually into industry in their tens of thousands.

Technical education in Soviet Russia, he says, falls behind that of the best English technical schools. The mathematical, systematic, theoretical training of students is, however, as good as or better than in England; and once within the factory, young students quickly master their job: "There is no doubt at all of their enthusiasm, ability and capacity for hard work."

Now, it happens that I was in a position to apply personal tests of the correctness of this estimate of efficiency, for I was able to examine the output of that particular factory on the spot in considering Moscow's transport problems and the means she has adopted to meet them.

Moscow, we must remember, has sprung within twenty-one years from an old town of 1,000,000 inhabitants, living in narrow, congested streets, into a vast city with a population of 3,750,000 souls. The old, slow-moving tramcars were utterly unable to handle the daily movement of this multitude. The narrowness of the streets made motor traffic at rush hours impossible.

Moscow tackled her transport problem vigorously and in three ways. Leaving the centre of the city for motors and trolley buses, she dived beneath the surface and built in radial lines an underground railway system called the Metro, unsurpassed by any underground railway system in the world. She built it in record time and on a wave of popular enthusiasm: doctors, students, musicians, teachers, and men and women of all grades and professions "by the hundreds" vying with one another in voluntary labour to speed its completion.

For beauty, lighting, general comfort, and orderly working this railway has no equal; its stations, platforms, and escalators, free from disfiguring advertisements, are spacious and marble-lined. But of particular interest are the electric trains, entirely designed and constructed by Soviet engineers. These trains have carried upwards of 100,000,000 passengers during their first year of working, without any significant defect or fatal accident, and succeeding years further demonstrate their solid achievement.

The electrical equipment of this railway came from my friend's Dynamo Works, bearing out completely his estimate of young Russia's capability.

Still better, as a witness to Russia's new efficiency, are the fast trams which carry traffic on the outer and circular routes, leaving motor and trolley buses to deal with the central area.

These trams are lovely vehicles, stream-lined, blue-painted, well upholstered, well lit, internally heated, and fitted with automatic doors. Their horse-power of 500 compares with the English 200 for two-decker cars, and provides magnificent acceleration. "Regenerative braking" returns energy to the power supply. No power is lost when a car is brought to a standstill.

Moscow's electric cars reveal entire mastery of modern technical possibilities and inventiveness.

I confess frankly, then, that I am more at home in the company of experts like the engineer I quote than with unscientific journalists like Mr. Lyons. The approach of the two men to the same problem is so utterly different. My engineering or educational friends, for instance, never wrote as they entered Russia of the red stars which "seemed to glow on the peaked caps of the Red Soldiers with an inner light of their own, in the deepening twilight of our railway coach. They shed an aura of intimacy, and authenticated, in the mysterious language of symbols, the revolution and everything it stood for in our minds. After a life-time in which established authority is synonymous with reaction and exploitation, the flesh-and-blood vision of a communist soldier or communist policeman verges on the miraculous."¹ The scientific mind is a stranger to experiences like this. Neither can the scientific expert deliberately, from considerations of 'policy', deceive the public. It may seem permissible to a journalist to defame the credibility of a brother-journalist by false witness. To a scientific worker that kind of lie is abhorrent in the extreme, and to those who seek the truth of Russia

¹ "Assignment in Utopia", by Eugene Lyons, p. 53.

it at once creates distrust. In the incident related on page 575 of his book Mr. Lyons tells us that the first reliable report of the Russian famine was given to the world by an English journalist, a certain Gareth Jones, at one time Secretary to Mr. Lloyd George. "Jones had a conscientious streak in his make-up which took him on a secret journey into the Ukraine and a brief walking tour through its countryside." Jones gave to the world a summary of what he had seen and what he had learned from Mr. Lyons and other journalists and diplomats.

" . . . we all received queries from our home offices on the subject. . . . Throwing down Jones was as unpleasant a chore as fell to any of us in years of juggling facts to please dictatorial regimes—but throw him down we did, unanimously, and in almost identical formulas of equivocation. Poor Gareth Jones must have been the most surprised human being alive when the facts he so painstakingly garnered from our mouths were snowed under by our denials." How, in face of this, are we to be sure that Mr. Lyons' whole book is not a similar juggling of facts?

I found better guides in men who in any circumstances were incapable of sentimental gush or deliberate deception. Men like Professor B. Mouat Jones, now Vice-Chancellor of Leeds University, at this time head of the Manchester College of Technology, who, in the earlier years of the experiment, inspected and reported upon Russia's technological training. Or, to take the most recent instance, in men like Professor Hanson, the American horticulturist, with whom recently I travelled in the Caucasus, the Crimea, and the Ukraine. Men to whom truth was sacred and whose assertions are capable of concrete verification.

As an interested student of Russian affairs for a quarter of a century, whilst I have seen and heard things which have shocked and disturbed me, I have heard and learned and seen many more which enthuse and encourage me. Like Christian in Bunyan's "Pilgrim's Progress", I have often been tempted to say: "These things put me in hope

and fear." Happily, as the years go by, the hope enlarges and the fears depart.

I do not expect to see Utopia in Russia. I do not expect to see Utopia anywhere. A Utopian world to me would be a dead and static world. What I do see emerging, however, is a new stage in the history of human progress, and this book is written to describe what I see and explain why I welcome it. And as an aid to the reader, who can always estimate better the value of an appreciation or a criticism if he sees it against the personal background of the critic or admirer, and against the problems with which life has confronted them, I shall make no apology for beginning, as I stated in the Preface, with a chapter of personal biography.

(i) *Bourgeois Boyhood*

I WAS born in 1874, in Kersal, then a fashionable suburb two miles from the centre of Manchester, where Bishop and



My family were of the prosperous middle class

Dean had their residences and "carriage folk" lived within easy reach of warehouses and city offices.

My family were of the prosperous middle class, my paternal ancestors coming from Oundle, where their pleasantly carved Georgian tombstones still stand against

the walls of the ancient Parish Church. On my mother's side was Huguenot blood, with tales of rebels and martyrs in a treasured pedigree.

My maternal grandfather was a noted Lancashire preacher, who, for fifty-three years, held his vicarage at Astley on Chat Moss, a beautiful old Tudor house, where the grandchildren gathered for the Christmas holidays. A Doctor of Divinity, and somewhat of a scholar, besides bringing up a family of eleven children, and equipping them for various honourable and even distinguished positions, on an income of some £300 a year, he taught and shepherded the village boys, all of the working class, to such advantage that many reached eminence in a variety of directions, one as founder of a Manchester Commercial Exchange, another as Chairman of the London School Board, and another as Bishop of Carlisle. In Astley Vicarage I learned that the best start in life lies in a simple home with cultivated tastes and no enervating atmosphere of financial endowment. The bulk of men reaching positions of useful eminence in the England of the past generation—"Who's Who" declares it—sprang from kindred manses and vicarages. Neither wealth nor poverty extracts the best from boy or girl.

In Astley I also learned that brains are no monopoly of a single class. Astley gave the lie to the Nazi pseudo-scientific doctrine of superior and inferior castes, and enabled me to learn very early that Britain was suffering enormous losses through untended talents. Not all village children had teachers so capable and disinterested as those at Astley in that half-century, nor have all children even today access at least to equality of training.

The family manufacturing business, of which my father was the head, was one of those comfortable lesser industrial concerns, always in the hands of a single family, never making vast fortunes, but living on after comet enterprises have flared up and sputtered down into obscurity again. It celebrated its hundredth anniversary when I was a small boy, and my father entertained the staff and the employees to a centenary banquet.

I spent many hours as a boy in those "works", as we then called the factory; especially in the engine-room with Jim, the diminutive millwright, who worked miracles on a lathe which would now be in a museum, and helped us as children to fill our treasure-boxes with bobbins and shuttles and bits of wire-cloth woven then on hand-looms, with men at each end plying the shuttle, and boys on an elevated platform in the centre pulling up the beams which drove home the weft.

There was an intimacy in those days between operatives and employers, and a homely air pervaded the factory. The older men, who had worked with the firm from boyhood, would say to me as I grew up: "Mr. Hewlett, you will be a taller man than Mr. Charles, your father; and he was taller than your grandfather, the old master." Once, when it was suggested, out of kind consideration to an old and faithful servant, that he should be pensioned off to end his years in ease, he came to the office and begged: "Please don't do it: it would break my heart to leave the old place."

Later, in modern industrial concerns, my experience of a harder and less human atmosphere quickened the quest, in me as in many more, for the moral equivalent of that which had gone.

As we grew up, a family of nine children, we moved on, as most people of the well-to-do class then did, from smaller to larger houses, from the smoky northern to the sunnier southern suburbs of the town, which then went sprawling across the meadows on the Cheshire side. All around us was the hum of a prosperous expanding world. I used to ride out, as a boy, on my small penny-farthing bicycle, whose big wheel was only thirty-six inches high, amongst streets of new suburban houses and thriving gardens: the ring of a trowel on a brick still thrills me, as one of my earliest impressions. We lived in a world of creative activity, amongst a class of boys whose future, given the needed ambition and industry, was attractive and assured. Industrial adventure and expansion were at their height.

As the years sped by, we passed farther and farther from the industrial areas of the town, and at length went to live

in a comely Grange in the heart of Cheshire, twenty-five miles from the city, doing on the smaller scale what my uncle was doing on the large; for he, as Chairman of the Master Miners of England, had now built a vast mansion in the heart of Warwickshire. Operatives and employers began to see less of one another. It was less easy for workers from the small homes in the dreary streets to see us in the Grange than formerly, when we lived in a house with a number. These discomforting thoughts grew as, later, Christian social sensitiveness developed. In the main, however, life ran smoothly on, and one accepted the customary distinction of class and the inequalities of wealth and opportunity as part of a Divine order, to be mitigated rather than radically changed.

In many respects it was a healthy life. My mother, who loved the task of teacher, taught her nine children up to the age when they went to the public school or the grammar school, managed her considerable establishment, and took the lead in social and religious activities. She not only possessed cultivated tastes, but was athletic and adventurous before the days of women's sports. She walked, with my sisters, sixty miles in two consecutive days around a Scottish island, firing my brother and me to do the same feat in a single day. She bathed daily in the sea in fair weather and foul, and when in her old age she lived at the seaside itself, continued her bathing far into the autumn days and up to her eightieth year. She was as unconventional in dress as in a hundred other things, and never wore corsets or high-heeled shoes.

Owing so much to a singularly happy home, and to the wisest of mothers, I can conceive of no social order as healthy in a high sense which was denied these things as the basis of its life; which lacked cultivated homes and capable, intelligent, public-minded womanhood, living in complete equality with the men of the home. For from my mother I had learned that active public and social life was by no means incompatible with the beauty and simplicities of home. Quite the reverse. It knit the home in bonds which outlived childhood and reached on into maturity. The wife and the mother had avoided the

sacrifice of wider interests for nursery and kitchen, and was none the less competent in either sphere for that fact. Thus it was that, later, when I came to examine modern Germany, modern France, or modern Russia, the first question that I asked related to the home and to womanhood.

An outstanding feature, as I look back on my boyhood, with its spacious country life and long summer holidays by the sea in Wales or Scotland, was its freedom and its all-pervading sense of security. We were never urged to win scholarships, or worried with thoughts as to our future livelihood. We suffered less strain than children today, though our lives and thoughts were perhaps no less active. Growth in that home was simpler and more natural. More wholesome, I think.

At the early age of seventeen I attended the Victoria University of Manchester to study science and engineering, and, taking a degree in science before the age of twenty-one, became an Associate Member of the Institute of Civil Engineers a few years later. A vital part of this training was the study of geology, in which my tutor was Professor Boyd Dawkins, friend of Richard Green, the historian, and a leading authority on primitive man. Dawkins, whose prize I won, was an enthusiastic disciple of Charles Darwin, and in a masterly way introduced us to the doctrines of evolution, and in doing so flung me into depths of religious gloom. Under the impact of evolution the fundamentalist beliefs of my youth cracked up. I eventually found myself robbed of faith in God and human immortality.

When, at a later date, and by ways and in modes which lie beyond the purpose of this book to describe, certain essential religious beliefs returned, it was less as the result of asking the old questions, "Is the Bible true?", or "Is Christianity true?", than by asking a series of wholly new questions, as for example: "Does a belief in Purpose, in the Conservation of Values, and in Christ's life and character as the truest Image of Reality give the best explanation of the realistic facts of the world, particularly of the facts of goodness, kindness, generosity, and heroic sacrifice?" And the faith which came was different from that which

went—a faith more humanistic, more searching in its claims on conduct, less content with conventional Christian platitudes, less divorced from daily living. If the Christian outlook on life was true at all, I argued to myself, it must demand more than the easy-going religious attitude of the ordinary religious world. I no longer wished to live at ease. I must go where life was difficult and dangerous. I read the story of Father Damien and his work among the lepers. I read biographies of missionary lives, and amongst them the story of Paton, the missionary engineer in Central Africa. His biography determined my course. I would be a missionary engineer.

(ii) *Apprenticeship to Life*

THAT DECISION was followed by apprenticeship in a Manchester engineering factory, which brought me face to face with a new challenge, as vital ultimately in its religious and practical consequences as the earlier challenge of evolution. Two ardent young socialists occupied lathes next to mine and opened the ideological attack. I met it with the assured confidence of a young man from college arguing with artisans. The fact that I was physically the match for any one of them hardly added to my humility. My family tradition had been conservative as well as fundamentalist, though our particular form of evangelical belief had made wide demands on charity, on willingness for personal sacrifice, and obedience to "the call of God" at any price: it had involved a semi-Quaker austerity of puritanic living.

My young antagonists had a better ally than they knew in the Christianity which was at that moment making my inner thoughts none too comfortable. For life in the family of a "Christian" industrial employer was always weakened by an inner conflict. It was a double life. The atmosphere of Sunday was one thing: that of Monday another. "Business is business" was a motto with a sinister meaning, and I failed to equate business and Christianity. The tension grew, and with the growth of inward

doubts opposition to the socialist lads at the bench increased in vehemence.

Later years alone revealed how vitally the new ideas were undermining the old complacencies. Gradually I became aware, during the six years I served as apprentice, assistant manager, and then in more responsible work in the ranks of the employing class—for I stayed on in the engineering world longer than was my original intention, and ultimately joined, for awhile, my father's firm—that by its very nature, the competitive, profit-making, and increasingly ruthless industrialism, in which I was now immersed, was at war alike with scientific training and Christian morality. The leaven of socialism was at work.

During the later years at Manchester University, and throughout my apprenticeship, the financial horizon of the family had passed under a cloud. The family business had met with reverses, and the home felt the pinch. We still lived in the large house; the façade remained, but worry and anxiety hid behind it. By the time my wage reached the sum of thirteen shillings a week I determined, despite my parents' wishes, to live on my own earnings. Lodgings with supper cost six shillings; other meals at a cheap cookhouse another six. Tramcars, newspapers, or cigarettes were avoided. I washed my own overalls, left my lodgings at 5.30 a.m. and returned at 6 p.m. At weekends I walked home into the country, avoiding the fare. Financial worry was a new experience, felt less on my own account than for the anxiety it caused to my mother. To me it proved a blessing in disguise. For poverty must be endured to be understood, and poverty endured served as an ally to the claims of Christian morality, which were now becoming increasingly insistent.

My work-companions were men with families, endeavouring to live on seventeen shillings a week. The poverty in their case was infinitely worse than mine. And as my Christian faith in God was utterly dependent on the complementary truth of the brotherhood of man, and demanded its practical expression, I asked what right had I, or any other Christian, to live in comfort, as I had done nearly all my life, and as my class did continually, while others suffered

constant economic hardship? True, as I tried to argue, they were less competent than men of my class, and on that account earned less. But then again they were less competent because heavily handicapped from the outset of life as to food, quiet, education, and a thousand other amenities. Sophistries failed, and the sense of great injustice grew. Either these men were to be regarded as human personalities and treated as such with equal respect, or they were not. My Christian faith said they were: in practice we denied it. If they were, then we ought to treat them as brothers.

I knew what brotherhood meant in practice. I had five brothers. In Scotland we owned a Loch Fyne fishing-smack with fine sea-going qualities. Being, as the Scots fishermen described us, "well acquaint with sails", the six brothers manned and navigated that boat alone day and night, and in all weathers, around the western Highlands. Each had his allotted task. The eldest brother was captain: the youngest did odd jobs and washed the dishes. The eldest, by virtue of his office, had special needs, space to spread the chart, and leisure to study it. But at meal-times the dish-washer sat with the captain, and should there be shortage of food, it was the captain and not the youngster who suffered. Why? Because the youngest and weakest was his brother.

I thought of the labourers in the works. These men, living on seventeen shillings a week, hard pressed when in work and destitute when out of it, were, if my Christianity told me true, to be regarded as my brothers. Were they weak and inefficient? So was my young brother in our Scottish boat. Was their function lowly? So was his. Weakness, therefore, constituted a greater, not a less claim, upon a Christian community, if the brotherhood theory was to hold good. Yet, at meal-times, they, unlike my young brother on the boat, got the leavings only, and barely that. I was uneasy.

Sundays quickened my misgivings: my daily Bible reading too, for I got up at 4.45 each morning to seize half an hour of study before the day began.

I had the opportunity at this time of seeing both the

hardship and the heroism of some of these people in their own homes. I remember, for instance, a husband and wife, whom I had visited at the request of a friend, the man being paralysed and bed-ridden. One evening I found him alone: his wife was absent. At 5 a.m. that morning she had risen, as usual, prepared the children's meals, tidied them for school, tended her husband; and then set off at 8 a.m. to earn a livelihood for all the family at a millinery establishment in town. Returning at 6, she had fed the family, and now was out again. Where? To nurse a neighbour sick with influenza. It was superb.

These are the kind of people, I argued to myself, who do the hard, dull work. These get the leavings. Others grow rich. It seemed grossly unjust, and entirely un-Christian. To be a true Christian one should share with these workers as with brothers; their very helplessness added to their claim.

But it needed more than sharing. Sharing would touch but the fringe of the problem. Justice, not charity, was the only remedy. Charity had become inadequate—a dangerous clearing of conscience. The problem cried aloud for a new and more scientific approach. The constitution of industry demanded overhauling. Was socialism, after all, a possible solution?

These thoughts ripened but slowly. Circumstances diverted my attention. I was advanced to a position of greater responsibility and moved away from the close companionship of the bench. The financial position at home brightened and I joined the family business, which was now embarking on new colonial enterprises.

My social misgivings also found temporary relief by week-ends spent at a club for working lads, conducted by Arthur Taylor, a remarkable young Manchester merchant. It was social work of the old order, but the finest of its type, performed with great competence, utter unselfishness, and on an astonishingly large scale. I married, later, Arthur Taylor's sister, a woman as competent and single-minded as he, and possessed of the same charm. Long years of wonderfully happy domestic life followed.

The scientific and engineering work in which I was

engaged was extremely attractive, and indeed the problems of production have never up to this moment lost their fascination. But social and religious instincts and interests could not be satisfied with a career of professional engineering, and, my wife more than sharing my feelings, we offered ourselves for missionary work in Central Africa, where an engineer's training might prove of practical use.

A missionary society accepted us, but required a course of theological study. Desiring the best, and the family fortunes now permitting it, I spent four years at Oxford, where literary and historical criticism and philosophy completed what the evolutionary teaching had begun and gave a new release to thought. A close analysis of the evolution of religious and social ideas made me expectant of change and kindled a fresh, but rather academic and dilettante interest, in socialism.

After receiving my honours degree, and being now rejected by the missionary society as unsuited for their particular theological requirements, I founded and edited *The Interpreter*, a theological quarterly journal, designed to commend to educated men the things the university had taught me; and at length, though somewhat reluctantly, yielding to the urgent request of Bishop Jayne, of Chester, I was ordained and went as curate to the parish of St. Margaret's, Altrincham, where I remained for three years as curate and sixteen years as vicar, never for a moment regretting the steps that had led me there. Nothing could have been more happy or instructive than those twenty years as parish priest.

(iii) *Parish Priest*

ALTRINCHAM is a wealthy suburb, eight miles south of Manchester, and in St. Margaret's parish was gathered as distinguished and delightful a company of industrial and professional magnates as in any parish in the land. The heads of great business corporations lived there: the head of the Fine Spinners; a head of the largest British Insurance Society; the head of the great steel works which aided

Mr. Lloyd George during the war; the engineer who built the Manchester Ship Canal; the heads of two great northern banks, and two barristers who became Judges of the High Court, to mention only a few. At one end arose an ultra-modern industrial manufacturing company, thrusting its sheds and workers' dwellings far out amidst the old Cheshire farms; and at the other end, in a stately mansion, lived one of England's oldest noble families, the Earls of Stamford, one of whom, a man of many attainments, great simplicity of life and beauty of character, subsequently appointed me as Vicar of St. Margaret's.

In my apprenticeship I had found myself at the poorer end of the social scale. Here was the other end, providing the completion of the process of social education begun amongst the artisans and labourers. Here were people whom I came to love, to respect, to learn from, and to admire. People, also, happily big enough to be kindly and tolerant to a curate, now tainted with socialism. For at this time, and in these circumstances, socialism was renewing its claims upon conscience and reason alike. The study of scientific socialism, side by side with the study of Christian theology, led me to the conclusion, which Herr Hitler is clear-headed enough to see, that Judaism and Christianity provide the high road to socialism and communism: from his point of view on that account to be eradicated, from mine, to be welcomed.

The capitalist friends amongst whom I now lived were at a further remove from the smaller capitalism in which I had been reared. The productive power of this new capitalism surpassed immeasurably that of the old, but the heads of the new order lived in less close contact with their operatives. Employer and employee dwelt in distant worlds, with fundamental interests almost inevitably in conflict. Each, in fact, now lived a narrower life.

In 1914 the war came, and though at that time being ninety per cent. pacifist at heart, my wife and I volunteered at its outbreak for service, she as nurse and I as chaplain. My views were too broad, perhaps, for the Chaplain-General. I was never called up. My wife, however, who, to prepare for missionary life, had been trained as a

nurse, and who was a competent organizer, was soon placed in charge of three great hospitals, where she worked with extraordinary devotion and skill, and where she laid the seeds of the illness from which she subsequently died, in a true sense a war victim. Her brother, Arthur Taylor, also died as the result of the war, in which he had served in a staff capacity. Ten years after his death, a Royal Prince, speaking in Manchester in connexion with work amongst boys, said that no one could mention lads' work in that city and omit the name of so remarkable a man as Arthur Taylor. The same could be said of his sister, Mary. Both in the Altrincham parish and subsequently at the Manchester Deanery she left a mark which will not soon be forgotten.

During the war I studied and worked with Mr., afterwards Sir, Drummond Frazer, Manager of the Union Bank of Manchester, and lecturer in Banking at Manchester University, who ultimately became Vice-Chairman of the Bankers' Institute and financial administrator under the League of Nations. He was especially interested in Austria, the tale of whose misery I told him following a visit there immediately after the war. To him I owe interest in and useful understanding of banking and money. At his own request I interpreted his ideas in extremely simple language for *The Economist*, and wrote the speeches he delivered to London, American, and Parisian bankers. In particular I wrote the paper which led to the fifteen-and-sixpenny war bonds, and another on the Ter Meulen Bond Scheme.

It was at this time, with these new interests, that I came across Major Douglas and the Social Credit Movement, perceiving at once what appeared to me to be the essential correctness of his analysis and its bearing on social problems. If later I have moved on to other solutions, it has been on moral and practical rather than technical grounds, and because a wider horizon had, in the meantime, opened up. Social reformers will always owe a debt to Douglas.

St. Margaret's parish, however, was not wholly composed of ultra-rich people, and it afforded many chances of continuing my friendship with artisans and labourers:

life would have been poorer without them. Our social connexions, in particular with the children of the well-to-do artisans, of the poor, and the very poor, extended far beyond the parish boundaries.

The same thought arose with regard to the poorest of these children as with the labourers at the factory. If they really were God's children, and therefore my brothers and sisters, then their childhood demanded just those things which had made my own childhood profitable or bright. The standard of our own childhood—for my wife agreed with me—should be the standard of theirs. And as foremost among our own childish delights and education had been prolonged holidays in lovely seaside places, we began at once to take our school-boys to the sea; not for one hectic day, but for many days, and not to the noisy haunts of trippers, but to the nobler quieter spots of Wales. The numbers sometimes approached 400.

Returning from these camps one year, a group of little girls asked: "Is it fair always to take the boys and never the girls? Boys get everything: girls nothing. Girls are left at home when boys go away. Why not take girls sometimes?" That led to the first English camp for girls. Convention said no; but my wife said yes, and the matter was settled, and led to a succession of Girls' Camps in Abergele, Llanfairfechan, Rhos, Barmouth, and Harlech.

As the children grew older, and work replaced school, they begged us still to take them to the sea. And to our objection that we could hardly add two more camps—one for grown-up boys and another for grown-up girls—to those we already held, they sensibly replied, Why not then one camp more, taking the seniors together? In consequence another convention was smashed, and we held a first joint camp for senior boys and girls, with excellent results. In later years the seniors travelled with us far afield—to France, Switzerland, and Germany.

In ways such as these a parish unfolds infinite possibilities and suggests more. Things learnt as a boy in the home could be practised here on a wider scale. Why not in a whole country, or a world? The Christian religion certainly demands it. Science says it is possible.

Naturally each new step in this direction had been contested. "People won't mix easily as in a family," I was told. To which there were three possible replies: First, do they always mix easily in any family life? Certainly not in ours, and the higher flights of family happiness were reached only with patience and discipline. Secondly, camps had already proved the possibility of mixing on a scale wider than the family. The children had mixed. The officers had mixed, coming as they did from various social grades. They ate together, worked together, and played together, and all agreed that camp life marked the peak of the year. Thirdly, where mixing seemed really impossible—and in some cases it did—the fault lay farther back, where one section of God's children had been brought up with every luxury and educational facility, and the rest had remained ill-fed, ill-housed, and rushed at a tender age to the deadening repetitive tasks of modern industry. Who could wonder that the bright possibilities of childhood had been nipped in the bud? Who could wonder if the product was a maimed creature with whom none but a saint could mix?

My earlier experience of the nature of our modern industrial order had widened out now. Working as employee and employer, living amidst the inseparable poverty at the one end, and the thrust and struggle and wealth at the other, I had seen, despite all the fineness of character which could be found in either extreme, the moral havoc it had wrought in both.

Modern industry separated the classes and drove them ever wider apart. The very rich lived with small first-hand knowledge of the very poor. The after-dinner talk in smoke-rooms told it. Great business transactions took place in central offices in town, or in palatial board rooms in fine and well-planned works. What happened in small homes in industrial areas, as the result of Board-Room policies and economies, seldom reached the imagination which moves emotion and leads to action. Rich men are not callous. The great majority, in their private lives, are good, kind, generous, and considerate. Face to face with distress they act with spontaneous liberality. But business

life moves in a world growingly remote from the human consequences of business action.

J. B. Priestley, in a suggestive passage, once made graphically clear the kind of thing that was borne in upon me whilst in Altrincham, or again as Dean of Manchester and later of Canterbury. "There are," he says, "too many mechanically minded persons in the world now, and people of this type tend to lack imagination. If you suggested to the average young airman that he should alight from his plane in foreign territory and go through the nearest 'infants' school and there bash out all their brains with a club, he might resent the suggestion. But he has no objection to dropping high-explosive bombs on the same infants. He does not see himself as a child murderer on a fine large scale. (And notice how oddly unreal the world below seems from a plane—a bad business that!) He and his kind do not see anything very clearly. Most of them have very little imagination."

I recall, in the light of what he says, my own earlier resentment at the un-Christian nature of the industrial order when I lived at the lower end of it and experienced its accompanying poverty and harassing insecurity. I recalled, too, the weakening of that early resentment as life got busier, as tasks became more creative and interesting, and as the money-making motive was fed through the effort to win one's own security and freedom by means of personal acquisition; and when specialization of function had flung us as employers farther and farther away from the employees, physically as regards our dwellings, and mentally when employer and employed met in a purely business way and mainly through a trade-union representative. Here in the parish I was surrounded by men who had travelled farther along the same unimaginative road. The results were becoming increasingly unhappy for both extremes. The country, to which both belonged, was also a loser.

It was unhappy for the worker, especially for the poorer worker—for the man who was too poor to realize unaided his latent possibilities. I recalled frequently the boys in my grandfather's parish, successful because someone was

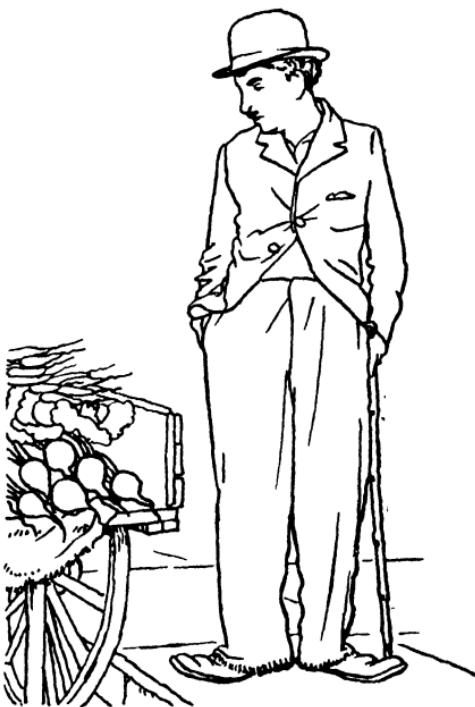
there to lift them up into a life where talent had opportunity to develop. I compared these boys in the modern factory with them. One such lad stands out vividly in my mind; typical of many more. A clever lad, straight from school at the age of thirteen. His recitation of Shakespeare has left a lasting impression. The task of this "nipper", as the lads in a factory were then called, was to finish coachscrews, which means clamping the rough, bolt-headed iron in a vice, and pushing it forward between screw dies beneath a stream of soapy water. The boy learned the task in an hour: repeated it fifty-two hours a week for months, and at length became—a tool. The keen edge had fled from his mental life.

Some few boys, during my days of apprenticeship, escaped by fitting themselves through desperately hard work in their spare hours for other means of livelihood. One by music. Another by trick riding on a bicycle. Another, Charlie Chaplin by name, employed in a neighbouring works, through playing minor parts with a company of local actors, and destined at length, through his consummate art, to move a whole world to pity at the pathos of the mechanical product of modern industry.

Most boys succumbed. The bright promise of childhood died. Dulled in mind, dependent on stimulants, on the weekly sweepstake, or the sexual excitements of the street, they perished mentally, æsthetically, and spiritually. The Board Room, the Stock Exchange, or the Cabinet, knew as little of these deaths, for which the industrial policy they administered was ultimately responsible, and which could, with knowledge and with will, have been prevented, as the mechanically minded pilot whose bombs dealt death to infants. They would have been as loath to do it as he, had they known to what extent the policy of profit-making in industry was responsible for the murder of human brains.

Nor was this policy less unhappy for the employing class, though its deeper ravages of greed and power and pride were less obvious. A competent Manchester banker once remarked during those years at Altrincham: "More money is lost in industry through incapable sons carrying on and running inefficiently the businesses built up by their

capable fathers than would pay every rise in wages which operatives have tried to wrest by means of strikes." How true this was I quickly perceived, as I contrasted the youth in the average luxurious home with the youth in average manses and vicarages, the one enervated by the wealth



Another, Charlie Chaplin by name.

they would inherit, and the other spurred by the knowledge that a cultured standard of life could be earned only by personal achievement.

This society on which I was now looking, drifting apart in extremes of poverty and wealth, seemed as dangerous in its inefficiency and instability as un-Christian in its spirit. The interests of the two sections into which it was split were always and essentially opposed. Looked at from the

angle of the rich employer, labour was a cost of production. But since it was an axiom that all costs of production must be reduced to a minimum—competition betwixt firm and firm and country and country demanded it—the incessant drive towards reduction of wages was only natural and logical: wage costs are bound to be regarded in a strangely impersonal way around Board-Room tables.

On the other hand, the wage was the operative's only means of achieving maintenance, security, or any measure of culture for himself and his family. His all was at stake; he must fight for wage maintenance and wage increase. The root of discord was never far away, though in this case or that it might lie hidden or unrecognized. The more imaginative and Christianly minded employer was at times painfully aware of this: and one of them, whose labourers, I knew, received seventeen shillings a week, exclaimed to me, "Would to God the labourers would form a union and compel my competitors to do as I would gladly do in concert with them but dare not do alone".

2. THE RISE AND DECLINE OF CAPITALISM

(i) *Nineteenth-Century Evolution*

EVERYTHING IN the parish, as in the workshop and at the bench, had left me more convinced that production conducted by profit for private gain, combined with fierce competition between firm and firm, was thwarting society at both ends and robbing the country of needed brains. If, as a minister of religion, I attacked gambling, base excitement, deceit, and a lack of interest in culture and spiritual things, and left unchallenged one of the major causes from which these evils spring, I was straining at gnats and swallowing camels.

Capitalism, which has, in a primitive form, been with us since the Middle Ages, and had sprung into a new prominence at the end of the sixteenth century, now completely dominates human life, and dictates, consciously or unconsciously, to men and women, not only how they shall live, but whether life be permitted to them at all. Capitalism dictates the policy of industry and the policy of States. Its root principles, I was compelled at last to admit, are morally wrong, its neglect of science shameful, and its results disastrous.

Capitalism has divorced the mass of industrial and agricultural workers from ownership of the means of production. The things by which men live are beyond their own control. Production of vital commodities—food, clothing, housing, and the like—is carried on and permitted, not with a view to the ascertained needs of the community as a whole, but merely as a means of livelihood and profit for select and fortunate individuals. The result is want for some, opulence for others, and confusion for all. Never have the needs of the community as a whole been considered in one general plan with an eye to the maximum safety and well-being of each. All has been left to chance and profit.

Capitalism may indeed have had a certain justification in a poorer and a ruder age, when the capital needed for the expansion of an infant industry could only be accumulated if some men pinched and saved. Capital accumulations today are largely made by ploughing profits back into industry and by exploitation of workers, who are employed as long as profitable and then left derelict, as witness the present depressed areas.

Capitalism had a further justification when competition and private profit stimulated enterprise and inventiveness, helping to establish the machine and raising the standard of living. Though, even so, the human wreckage it left in its wake was appalling. Today privately owned capital no longer serves a useful purpose; it becomes a hindrance rather than a help, to science, to invention, and to enterprise. The productive power made possible by science and invention outruns capitalist control: capital accumulates enormous aggregates in relatively few hands—Henry Ford's capital, for instance, exceeds £400,000,000—and becomes a danger and an embarrassment. Capital demands new sources of raw material and new markets. The road is paved by it to economic imperialism, to rival spheres of capitalist exploitation, to native and imperialist rivalries, and to war. Capitalism had war at heart from the first. If capitalism begins in petty commercial strife, it ends in world war.

Experience of industry, alike as artisan and as member of the possessing classes, had driven me at last to these conclusions. I had seen the thing from within and from without. I had seen the outside of the platter, fair to look upon, the inside foul. Personal experience of poverty on the one hand, and intimate knowledge of the circles of the rich on the other, had driven the lesson home and left me in no doubt as to where my duty as a Christian minister lay. No longer could I resist the conclusion that capitalism was doomed. No longer must the livelihood of the community rest in irresponsible hands; blast furnaces remaining cold, mines undug, and houses unbuilt, unless somebody's private profit sets forward the lighting, the digging, and the building. Shivering miners

cannot dig the coal they need; naked men cannot weave their shirts and coats, nor can the man who lives seven in a single room enter a brickyard and build himself a house; though he kick his heels for a dozen years in idleness, he must remain in misery if no one can make a profit from his labour. The public that needs these things and can produce them has no access to the land and the machinery of production. Private profit takes precedence of human life. Christian morality, if it is to be true to its mission, must find these things intolerable and demand reform.

Capitalism seeks not the greatest good, but the greatest profit. If more money is made in "pools" or whisky than in food and clothes for the children, then capital finds its way to these more profitable but less socially useful enterprises. The capitalist himself is a victim to the drive for profit. He dare not be as generous as, when a good man, he may wish to be. He may make costly mistakes. He does not know what other owners are doing, or what newcomers are about to do. He may be outwitted by others. He and they may produce more than consumers can buy, and be caught in a slump. He has small chance to be pitiful or generous. Other owners, also acting on their own sole responsibility, drive hard bargains and compete with him. His standard is driven down to theirs. The owner competing in the open market dare give little away. Colliery proprietors cannot regard too closely the human souls whose work has made them rich, if richer seams elsewhere give better use to capital.

All are caught in the same vicious circle. Business is business. It is not a Sunday-school party. Wage troubles are a nuisance. The Board Room in London is far removed from the depressed colliery village. Workers suffer. Their life depends on wages and wage rises. The proprietor's profits depend on reduction of costs, of which wage is one. The two are at variance, and the worker pays the price. The consumer also has his part of the price to pay, for industry suffers incredible losses; it moves in jerks, and often refuses to move at all. Cotton

was in great demand after the war. Fresh mills arose; the workers were spurred on, in the interests of recovery, to produce in abundance, and all would be well. They did so. The slump came. They, and the less quick-witted employers with them, were ruined. Lancashire today is a depressed area. Do we wonder at ca'canny?

The thing is not only immoral; it is hopelessly inefficient. Control by a single owner or a group of owners, instead of control by the whole community, leads to inevitable confusion and loss, to booms and slumps, to bankruptcies and the scrapping of capable concerns, to unemployment, poverty, and brutality, and at length to war. Private ownership of the means of production has outlived its day. It is doomed.

Happily there is an alternative.

The instruments of production can be owned publicly; and worked, not for private profit, but for public service, the needs of consumers being the controlling factor. Production can be worked by plan, the people as a whole deciding what they need and producing a sufficient supply to meet it. The nation could make its budget, as the competent housewife makes hers, planning what proportion should be spent on defence, on food, on housing, clothing, education, health, and provision for the future. Booms and slumps and unemployment could cease. Inventions could be set free and encouraged. Commodities could be increased and education fostered. Leisure could be used for creative development. All could live a civilized life.

Service replacing profit, planning replacing personal whim, production could become both scientific and moral, having for its motive the provision of the means of well-being for all.

This age, marred by the private ownership of the means of life, with all its crippling effects on science and industry, with its immoral emphasis on acquisition, and with its inevitable consequence of wealth and poverty, of class distinctions and class discords, must go. Science, civilization, and Christianity alike demand it.

(ii) *Nineteenth-Century Consummation*

THE MORAL outrage which we have thus traced has its counterpart in a scientific outrage. The machine suffers equally with the human element. The competitive, profit-making industry and the capitalistic accumulation of wealth which in earlier days had been an aid to production now served to cripple it. And science, once the welcomed handmaid, is driven into the wilderness. My engineering interests had not ceased after my ordination, and I could follow more attentively perhaps than those who were actively immersed in daily engineering tasks, the sinister trend of wastage and frustration. The years at Altrincham had been marked by the development of that frustration of science which had begun in its earlier stages in my pre-parish days, which became dramatic after the war boom had spent itself, and reached a climax during the succeeding years when, as Dean of Manchester, I was in a position to observe it more narrowly and at closer quarters.

Ours is a power age, and power, by utilizing the machine, can unlock the door to plenty. Physical science supplies us with the complete and immediate solution of the material problems of human existence, if unhindered by economic causes. Unfettered in its earlier stages, science had advanced by leaps and bounds. Capitalism, in those days, had proved a true friend to science. The process had been long and full of interest.

Up to the sixteenth century man had taken what Nature had given. He had gleaned Nature's gifts in his own area, and when these were exhausted had sought more beyond his borders, a quest which had inspired the great navigators of the sixteenth century to open roads of communication to the ends of the earth. Science had made this possible by inventing and perfecting instruments of travel—calendars, compasses, chronometers, and maps.

The seventeenth century saw the earliest beginnings of

another quest, more important still, and rendered necessary by shortage of human labour. The hordes of slaves which had helped the southern empires were not available in the kingdoms of the north. Human muscles standing at a premium, science increasingly stepped in, seeking and finding other sources of power; and man, slowly wresting from Nature the secrets of unlimited non-human sources of energy, harnessed them to human tasks. The power age had begun, damming rivers, harnessing falling water, extracting coal and oil, the bottled sunshine of a million years, and with their explosive forces driving our vehicles, wielding our hammers, axes, picks, and spades, lifting arduous work from our shoulders and setting us free for higher tasks. The golden age had begun.

Within the last two centuries, power development has increased with incredible rapidity. In 1712 a steam engine was invented which developed 56 man-power. In 1772 a single engine produced 765 man-power. By 1871 it had grown to 20,000 man-power. By the 1890's a single reciprocating engine produced 234,000 times the work of one man. Our twentieth century has even greater things to show, and now we have a turbine unit, working on a twenty-four-hour basis, producing 9,000,000 man-power.

Modern power-plants work in terrible solitude, ignoring human labour. Steel arms overhang the wharves where coal-barges advance. Huge scoops descend, close down on a ton of coal, lift it bodily to an elevated track, along which it passes, being weighed automatically in transit; it then descends to moving grates which feed it to the boilers. Clinkers fall on belts travelling in water-troughs, and pass to the waiting trucks. Coal at one end, clinkers at the other; and, in the space between, heat extracted, steam raised, turbines driven, and power greater than all the power available in England when Elizabeth was Queen, sent pulsing across the countryside. And all this operated by a score or so of men. There is no conceivable limit to the utilization of solar power for productive purposes.

And as with the development of power, so with the development of the machinery which harnesses it to the

use of man. Machines in the nineteenth century were able to replace the hewers of wood and drawers of water. Machines of the twentieth century replace the intelligent operative on innumerable processes never dreamed of as possible before. Not only does power undertake the coarse work and supply us with electric shovels, which shift 30,000 cubic yards of earth in twenty-four hours of work, a task which, in human labour, would absorb for ten hours the work of 15,000 coolies; but it serves us with equal willingness and precision in the finest processes. A modern electric lamp-making machine casts off its shower of bulbs at the rate of 422 a minute, rivalling man in delicacy of handling and multiplying his labour in this instance by 10,000 times.

The machine replaces human labour in every branch of industry, and multiplies man's productive capacity beyond computation. In 1901 a single man produced 1,000 letter-heads an hour, with a machine. Today steam replaces the kick of his foot, electricity the flash of his hand, and one man produces 20,000 letter-heads an hour. Yesterday the brick-making worker, with simple tools, produced 450 bricks in an eight-hour day. The output of a modern brick-making machine is 320,000. In 1879, 41,685 men produced 3,070,875 tons of pig iron in the United States of America. In 1929, 24,960 men produced 42,613,983 tons.

The machine invades the office, doing the work of men in black coats, or girls in blouses, as readily as the tasks of artisans in overalls. A machine, resembling a mammoth typewriter and operated by one girl, can deal, we are told, with 60,000 separate ledger entries in an hour. Other machines are equipped with electric eyes. The photo-electric ray sees with unerring accuracy, detecting a broken thread in the weaving-loom, pouncing on an unlabelled tin travelling among its labelled companions on a belt, and carting it off, seizing upon iron billets at any desired temperature and handing them to the forger. The electric eye was installed recently at a toothpaste factory to hold the orifice of the tube instantaneously, at the precise moment, and in the precise spot necessary to

receive its fill of paste. The electric eye replaced half the staff.

Science makes for national independence. No need now to seek slaves in war to drive our tools, and less need to seek commodities from the ends of the earth. Nitrates to fertilize our fields formerly came from Chile. Our fleets steamed 7,000 miles round Cape Horn to bring them. Today they drop from the sky. Sixty miles of nitrogen rise vertically above us, and the electric current brings fertilizers falling like snowflakes from the point of a carbon needle, extracted solely from the atmosphere. Nitrate fleets rust. The navigator, instead of rejoicing in, and sharing, an increased national affluence, freed from perilous tasks for more creative work, kicks his heels in idleness and penury.

What an asset the scientist is when we dare to utilize him, and utilize the wealth that even one man can make possible. Sir Robert Hadfield read a paper in 1932 before the Oil Industries Club, and claimed that economies to the value of £500,000,000 had resulted from the use of only two of the many steels he had invented. The savings due to Edison's work have been estimated at £3,000,000,000. Fifty men, in the Kimberley mine in California, by the use of automatic appliances, load 5,000 tons of lead ore a day—one-eighth of the world's total output. The boot factories in Northamptonshire can, in a few month's work, turn out all the boots actually used in this country in a year. The tractor drawing the combined harvester and thresher have increased the output of the wheatfield worker some seventy-fold. For the first time in history it has enabled crop-farming to be carried on without seasonal demands on labour. The wheatlands of Canada have been extended hundreds of miles farther north by the work of Cambridge botanists, whilst Sir Daniel Hall, Advisor to the Board of Agriculture, tells us that the possible productivity of our own English soil has been doubled by the scientific work of the last ten years. The genetic study of the sugar-cane by Dutch investigators introduced new canes which have raised the yield of sugar in Java by 15 tons per hectare, as compared with a world

average of only 3·5 tons. Chemistry and biology are working miracles as well as physics, and Professor J. B. S. Haldane sees the day approaching when with cellulose-splitting enzymes we shall convert wood pulp into palatable food. We live but on the fringe of possibility.

Science, which had been aided and befriended by nineteenth-century capitalism, had rewarded her benefactors a thousandfold. The social and political atmosphere had been propitious; the world situation was ripe for advance. Progress and achievement were staggering. Industrial development and technical improvement were eagerly sought and substantially encouraged. Scientific institutes were founded and study was endowed. In an age of Liberalism and of continuously expanding prosperity, every fresh industrial conquest stimulated further scientific research. New scientific discoveries led to new industries, and new industries craved fresh scientific discoveries. The world lay open to industrial adventure and enterprise. Raw materials were available and new markets awaited the enterprising industrialists. Science and capitalistic industry walked hand in hand. It was a happy and a fruitful partnership.

(iii) *Twentieth-Century Frustration*

THE TWENTIETH century inherits the labour of this fruitful partnership. Science and industry combined to bequeath to us all that was needed to make poverty an anachronism. What, we might well ask, should we lack today, were the men now idle operating the machines? Would any lack shirts or sheets? Ask American cotton farms and Lancashire mills. Would any lack bread? Ask the Canadian prairies. Would any lack clothes? Ask the sheep-farms of Australia and the woollen mills of the Yorkshire dales. And ask Brazil, Malay, Spain, and where not besides, if we need lack coffee, rubber, sugar, oranges, or a hundred other commodities.

Nor is that all. The prospect is brighter still; we are by no means limited to our present resources in machinery and

power ; greater energy awaits us whenever we desire it, new machines, more cunningly devised, together with new materials and processes long ripe for practical application. Hindered by no internal or intrinsic difficulties or unfitness, nor by reluctance of consumers for further commodities or services, these benefits linger wholly and solely because of the inability or unwillingness of the present organization of production to supply the commodities and services which are physically possible and morally desirable. The tragic fact, however, confronts us that, speaking generally, and excluding war industries and heavy industries, new discoveries cease to be welcome guests. The productive powers of the industrial machine become an embarrassment rather than a boon : there is small incentive to increase them. The social organization of distribution is at fault. Mass production is not mated to mass consumption. Machines and processes, by means of which scientists provide for our every material need—houses, food, clothing, and the means to leisure and security—are run deliberately slowly : we limit our Rolls Royce to ten miles an hour. The gift which should enrich all impoverishes each. We spurn it ; sabotage it ; and when but recently, despite all our efforts, commodities, unrestricted at their source, had increased astronomically, we ruthlessly destroyed with one hand what we had made with the other.

Half a million sheep were burnt to cinders in Chile ; six million dairy-cattle and two million sheep destroyed in the U.S.A. Twenty-six million bags of Brazilian coffee were dumped into the Pacific Ocean, and a shipload of Spanish oranges shovelled into the Irish Sea, while the empty vessel steamed into Liverpool on a sweltering August day amongst children to whom oranges were an unobtainable luxury.

We fling God's gifts back in His face. Fish thrown into the sea. Wheat burned. Fruit left rotting on the trees. Hundreds of thousands of acres of cotton crops ploughed into the land again. Rubber-growers forced to bewail improved methods of increasing production ; rubber pests hailed as angels from heaven.

Destruction on so preposterous a scale, and welcomed

with such indecent eagerness, called forth an appropriate rebuke from the common man and unsophisticated person, especially when occurring side by side with human destitution.

Our financial capitalism is wiser now. It wields a more deadly weapon than destruction against the embarrassment of plenty amidst poverty. Restriction is the new remedy. Restriction is safer than destruction. Destruction calls forth anger. Restriction lulls its dupes into false beliefs. Destruction reveals the fact of an age of plenty. Restriction produces the delusion of an age of scarcity. I knew at once the deadly nature of this weapon, and said so, when the order was issued for the restriction of 121,000,000 lbs. of tea in India, Ceylon, and the Dutch Indies. Every larder in Britain could have been supplied with 15 lbs. of an essential commodity had tea been distributed and not restricted. To a scientific engineer, whose job it is to economize human labour, this destruction of the fruit of the machine was not only pitiful: it was the logical and exasperating climax of a process of bungling and wastage which he had long been aware was inherent in the system of financial capitalism. For lack of planned distribution of commodities, through planned distribution of adequate purchasing power, side by side with planned production, human effort was misdirected and paralysed. It brought adequate satisfaction neither to the individual nor to the community. Factories



A shipload of Spanish oranges shovelled into the Irish Sea--



while the empty vessel steamed into Liverpool on a sweltering August day amongst children to whom oranges were an unattainable luxury.

were built and demolished; serviceable factory plants destroyed before half worn out; fully developed town-sites abandoned and unspoilt areas ruined; railway trucks profitably employed at less than 3 per cent. of their seventeen years of life, and, in the effort to rid ourselves of accumulating commodities, enormous sums of money spent on useless advertising. Lord Leverhulme's estimate in 1916 that one hour's work per week per person adequately directed might supply all our needs for food, shelter, and clothing, was made when production had half today's capacity.

The extent of this thwarting of our engineering plant may be gauged when we recollect that twenty-one years ago, with less efficient machinery, and in the midst of a world war which had diverted 20,000,000 men from mass production to mass destruction, factories sprang up overnight, and the remaining population, aided by boys and girls, old men, and women, maintained our common life, fed the guns with shells, and repaired in a hundred ways the wastages of war.

Furthermore, and beyond the wastage of misdirected energy, the actual achievements of applied science represent but a fraction of what could be done if new scientific theories, already approved, were practically applied. Application lingers far behind discovery. Industrial organization is at fault. In this respect even the eager nineteenth century was a culprit. Faraday, for example, discovered electro-magnetic induction in 1831. It was not applied to industry until 1882, when Edison built the first power-plant. Discoveries of the twentieth century which await translation into practice multiply daily. The time-gap between theoretical discovery and industrial application, which should be short, mysteriously lengthens out; in some cases it is indefinitely delayed.

New sources of energy await us since we have broken into the nucleus of the atom; and new forms of matter, made possible by the new ranges of temperature and pressures, are now placed at our disposal.

Science blazes trails. Capitalist industry avoids them. The community suffers. New materials is a case in point. Industrial achievement varies with the materials at its

disposal. Thus we have a stone age, a bronze age, an iron age. And new industrial triumphs await the practical use of materials now available; materials of unknown lightness, strength, and flexibility: lighter metals to replace iron; steel-reinforced metal films thin as bubbles and of inestimable value in chemical and electrical plants; glass, workable as metal, and colloid-expanded glasses, heat-proof, sound-proof, transparent, and light as cork.

Chemists only await the order to make our clothes from cellulose materials such as wood; light and porous clothes, and pressed into shape without the cycle of processes from spinning to tailoring: clothes produced at the cost of pence, not pounds. Plastic materials of infinite variety can follow—as soon as we will—the bakelite with which we are already familiar.

Science, in the twentieth century, stands at the parting of the ways. Capitalism, her former master, fails her and treats her with contempt. Financial resources are denied, and science is set to trivial or harmful tasks. Less than 2d. in every £1,000 of industrial output is spent on the advancement of scientific knowledge. Capitalism is run for profit, and when, for any reason, it ceases to be profitable to increase production, science is shunned. When science threatens, by a new process, to make machinery obsolete, or, worse still, to make the process, and even the commodity itself, obsolete, then invention is smothered.

Science blundered in the past through inefficiency. Its very efficiency is its crowning fault today. Given a free hand, and provided with the financial resources which the complicated nature of modern science requires, it is more than likely to discover powers, modes, processes, and materials which endanger vested interests. Science must be disciplined to immediate use. In industry, it is hinted, science will do well to confine itself to its proper function of reducing costs in processes already decided upon and in which capital is sunk. We know what happens when more durable yarns are produced, or what would happen should we free automobile engines from electrical appliances. The same principle operates in all directions. Take, for instance, the familiar coloured gas-discharge lamp, neon

light we call it. Few know the cheapness of this illuminant, fewer still that could we produce white instead of coloured neon light our electricity bills would drop by ten or twenty times. But how many know that it is not the insolubility of the problem of producing white neon light which prevents this saving to our pocket, but the losses that its invention would cause to power companies and the manufacturers of the common electric bulb.

Vested interests of private owners of the means of production cripple the scientist at every turn and rob the public. Low-temperature production of iron would turn blast furnaces into scrap. Blast furnaces are costly, and owned by powerful individuals. And powerful individuals in groups exercise great pressure on scientists and governments. And governments in capitalistic lands display small intention, in general, of supporting communal interests against interests of particular groups if those groups are powerful enough.

In one direction, however, science is a welcome guest to modern governments. Science is indispensable for war. Science is needed on the battlefield with weapons of offence and defence. Science is needed to secure within the national unit the commodities which render it self-supporting in time of war. Out of £450,000, the totally inadequate sum given by our Government to civil research, £90,000 are spent on Fuel Research, which has succeeded in giving us, at a cost of between four and five times the world price of petrol, an alternative source of an essential fuel in time of war. That fact alone is eloquent.

Science is wanted for warfare : elsewhere it is advised to take a holiday. Under threat of a plenty which capitalism cannot distribute, however much you and I may need it, scientific invention is placed under a moratorium. The thing is generally done decently, of course. It is hidden beneath a respectable slogan : at the moment the word "planning" is in fashion. Not socialist planning, not planning for the greatest possible production and the greatest possible distribution in the interests of all, for the maximum safety and well-being of all ; but planning in order to keep prices up and wages down ; with its disastrous

consequences of a lowered standard of living for all. Planning for scarcity, not for plenty. Planning which curtails new machinery and smothers invention. Planning which reduces the scientist to a henchman, his spending money curtailed; himself indeed retained for essential war purposes, but otherwise confined to trivial tasks, and warned by subtle means not to chase knowledge too far.

The sequel to all this is seen in Germany. Germany needs scientists primarily for war: she has no use for theoretical science.

Germany is especially illuminating in this connexion. For in Germany capitalism reaches its zenith and reveals its tendencies and its spirit. German standards of living, for example, have fallen. Mr. Douglas Jay, Fellow of All Souls and a leading economist, estimates in 1939 that "the real income per hour of a German worker who had a job on January 30, 1933, has fallen since by over 30 per cent." Germany's own Year Book shows, however, that during the period 1932-37 the number of millionaires increased by 1,266 and multi-millionaires by 180. Students in German universities have in the same period been almost halved in number: 133,000 in 1932-3; 72,000 in 1936-7.

Professor Blackett admirably shows that the Nordic Movement, which is armament-capitalist through and through in sympathy, is but one part of a larger anti-scientific movement. The Nazis cease to need pure science, as capitalists also cease to need pure science. Hence their exaltation of emotion and the mystic soul of the nation, and their dethronement of intellect and reason. Debarred from the fruits of scientific progress, they say the grapes are sour.

Science in the nineteenth century had become international. Science worked for the good of mankind as a whole. Today the horizon narrows. Scientists are encouraged to operate within the closed systems of economic nationalism; bidden to work for England alone, or Germany alone; to make England or Germany independent of other lands, to enable England or Germany, should need arise, to close their doors to all comers and yet not starve, nor lack essential commodities. Scientists

must produce synthetic substitutes for natural commodities. That in itself is no bad thing, but it would, in many cases be truer economy if the search were directed to the production of totally new articles of higher quality and value; to the discovery of new modes of power with less cumbrous units; or to experimenting on the border lines of the various sciences, on that living growing edge of things where biology meets physics and chemistry, and where both can come to terms with sociology.

If the object of science is to promote human welfare, through the delights of knowledge, through closer contact with reality, and through the mastery of Nature in the interests of man, then to turn scientists from wider tasks to the mere increase of profits for individual firms by reduction of working costs, or to make one nation independent of another for purposes of war, is to prostitute science to commercial gain or narrow national interest. The nobler aspects of science, together with its international character, depart.

Science is faced with two alternatives, and two alone. Two masters seek her allegiance. The capitalist order, which has little use for her now save in the matter of war. That way lie scientific decadence and death. The socialist order, with its complete and large-scale planning for maximum output, with its eager welcome for every contribution which science can give, and with its willingness to equip science and the scientist more amply for the purpose of peace than capitalism for the purpose of war. Science must choose, and the choice is a matter of life or death.

3. THE MORAL DENIAL OF CHRISTIANITY

IF CAPITALISM thwarts science, it also outrages Christianity, making impossible the Christian demand for justice, freedom, a creative abundant life, and an ever-widening fellowship for each human soul.

These four demands, which find an echo in every normal human being we meet, spring naturally and inevitably from the attitude of the Founder of Christianity towards individual men, and towards the goal of human society. To Him every man was of infinite worth, and His goal for society was the creation of a community of all human beings, irrespective of colour, sex, or race. Jesus makes this claim for man with simple objective directness. He reveals it as the fundamental truth about man ; to deny it is to court inevitable disaster. Where John the Baptist had dug down to one great universal affirmation, saying that God is a God of Justice, Jesus dug down to the other great affirmation by adding that God is a God of Love ; that He is the Father of men, with a care for all individual men so great that He numbers the very hairs of their head. This affirmation carries as its corollary—that all men, as God's children, are brothers, to be regarded as such and treated as such. Jesus, it has been well said, was the first man in history to take Monotheism with complete moral seriousness: one God, one Father of all, one family of men ; therefore, no racial distinctions, no national distinctions, no class distinctions—one brotherhood of men under one God.

There is nothing more fundamental about Christianity than that. Grant that, and the demand for justice, freedom, and abundance of creative life for each individual, together with an ever-widening fellowship, follow as day follows night. Grant that, and an economic order, which not only frustrates science but produces and tolerates wealth beside poverty, creates and perpetuates class distinctions, and fails to provide opportunity for all in the matter of work, leisure, education, or security, stands condemned.

By no ingenuity could I square capitalism with Christianity. The teaching of Jesus became clearer as He was rescued by modern critical scholarship from the stained-glass windows where we see a dreamy, pious, impracticable, and wholly otherworldly person, the "gentle Jesus meek and mild" as taught to little children, submissive in all circumstances, uninterested in politics, and avoiding challenge to damaging social conditions, or drastic rebuke to responsible ruling classes.

His personality was mysterious; and with an apocalyptic side to His teaching which we only partly understand. It had also an intensely practical side, and was stern as well as kind, and capable of an anger which could flare to white heat, and a bitterness of speech never surpassed by the most militant opponents of class rule. Even the apocalyptic element may have had more to do with this world than some suppose.

Jesus at least never left the doctrine of brotherhood in the clouds. He brought it down to earth. He attacked everything which made brotherhood difficult or impossible. He welcomed all that fostered brotherhood, or any circles where its growth was easy.

Jesus believed that the common people were nearer to the new world of His vision, where a community of brothers live under the rule of a common Father, than the cultured, educated, wealthy upper classes; the common people were kinder, and less proud. To the common people, therefore, He addressed His beatitudes—the people of the soil, the peasants, fishermen, and artisans like Himself. He tells the common people that the new world is for them, not for the rich, the prosperous, the self-satisfied: "Rejoice, ye poor, ye sinners, ye despised, the new world is meant for you." It was to the common people that He turned for disciples.

Common humanity was basic for Jesus. It was something transcending race, religion, and wealth. Such common humanity demanded the sharing of material possessions here on earth. The story of the Good Samaritan leaves no doubt as to the meaning of Jesus in this matter. Priest and Levite—the clergy of that day—

perceive a wounded man lying on the roadside, and leave him there, making Church and prayer an excuse for the neglect of common humanity. They failed to see a brother in the person of a needy man. Their religion therefore was vain and a hindrance: "If a man say he loves God and hates his brother he is a liar." In vivid contrast to the orthodox priest, a stranger, religiously unorthodox and of inferior race, steps across the road and gives assistance with all that he has—his care, his oil and wine, his money and his mule—and thus built up community on the basis of common humanity and common need, and through the sharing of material things.

Wealth, pride, and false spirituality are a hindrance to the building up of the new humanity. Jesus scorned the false spirituality which excuses pride and ignores the hungry. His hostility flared up when, at a feast, He saw His well-to-do, socially ambitious fellow-guests scramble for the best seats and ignore the feastless crowds. He urges the snobbish place-seekers to sit with lowlier people at lowlier seats, and scatter their invitations, not to the closed circle of the rich, but to hungry men. His words burst like bomb-shells. One foolish guest, to change the conversation, looking up to heaven exclaimed, "Blessed are they that eat bread in the Kingdom of God", speaking of the future, of heaven, and of eating; whereas Jesus was speaking of the present, of earth, and of giving. It is the voice of false religion throughout all the ages, making heaven an escape mechanism and neglecting the sorrows of earth.

Wealth was abhorrent to Him precisely because it breaks the bond between man and man. Wealth establishes social differences and social insensitiveness. Therefore wealth is condemned, in the story of Dives and Lazarus, in the abrupt reply of Jesus to the rich young man, and in the subsequent words: "How hardly shall they that have riches enter into the Kingdom of God."

Never was this repugnance to wealth and self-sufficiency, and the pride these beget, expressed more pungently than in the words: "Ye serpents, ye generation of vipers, how can ye escape the damnation of hell?"; and never more beautifully than in the story of the Prodigal Son, where

wealth, sought and gained, had isolated the young man from father and home, and landed him destitute among strangers and in a far country.

Wealth over against poverty meant to Jesus estrangement from God and man. What was true in His day is a hundredfold more true today, where wealth, accumulating in individual hands, gives undreamed-of power to its possessors, perpetuates class distinctions, and utterly dispossesses the worker.

Jesus was drastically outspoken in these matters. His love was tender indeed, but never submissive and never sentimental. It was militant, challenging the ruling classes and multiplying enemies against Himself. The revolutionary spirit of Jesus was bound to clash with the narrow nationalism of the Pharisees and the vested interests of the Sadducees. These were the classes who controlled the police, and when He attacked these they slew Him. His death was no accident. He had identified Himself with the depressed classes; He had challenged the possessing classes.

That identification and that challenge are as essentially a part of discipleship today as they were in the first century. And are likely to cost the Christian disciple as dearly. That, indeed, is not the whole of Christianity, nor the ultimate end of Christianity. Rather it is the indispensable beginning. The integration of humanity at which it aims, needs, in the Christian view, to be completed by a still higher integration. But the higher cannot come until the lower is begun. That is why if our brother hath ought against us—and so long as he is hungry and we are full he has much against us—we are bidden to leave our gift to God before the altar and go and first be reconciled to our brother and then come and offer our gift.

(i) *Denial of Justice*

“ENGLAND IS the land of justice.” Nine in ten of the comfortable classes take this for granted. Yet it is false. Where is justice when, in times of slump, two million unemployed

are restrained by force from access to land, machines, and tools with which they could be profitably employed, and condemned to eke out a miserable existence in enforced idleness and dwarfing poverty? Where is justice when, in an age of potential plenty, millions live in needless want; and half Britain is paralysed by fears of sickness, old age, or the other insecurities and vicissitudes of life?

An earlier section pictured the achievements of science and scientific industry, with its immediate promise of abundant life for all. Place beside that picture the facts of present and avoidable poverty in England, and say where justice lies. With milk restricted and herrings flung back into the sea, millions of British children are undersized and underfed, one-sixth of the whole child population disastrously so.

This is no wild statement or rough guess, it is based on cold calculations.

Sir John Boyd Orr, for example, one of Britain's most distinguished dietetic experts, in his recent book on "Food, Health, and Income", calculates that half our population is inadequately fed. Estimating ten shillings per head per week as essential for a completely adequate diet, he observes that only half our population can afford that sum. He classifies the population of Britain as follows:—

4,500,000	persons spending	4s.	a week on food.
9,000,000	"	6s.	"
9,000,000	"	8s.	"
9,000,000	"	10s.	"
9,000,000	"	12s.	"
4,500,000	"	over 14s.	"

The class spending under 4s. per person a week on food contains one-sixth of all British children. Where is justice there?

Beside Sir John Boyd Orr we can place these words of Sir George Newman in his book, "The Building of a Nation's Health":—

It is important for the public and the medical profession, to appreciate quite clearly that the maternal and infant mortalities in this country are still excessive.

Neither, of course, from the nature of the facts can be reduced to zero, but two facts are certain. First, the causation of a high mortality in maternity or in infancy is not obscure or mysterious. It is perfectly well known and it is in a very large degree preventable. Speaking generally, there is no mortality rate more pathetic, discreditable or unnecessary. Secondly, the decline in both of them has begun and is thus far an encouragement, but it is imperative that in every district of the land the responsible authorities should press home, insistently and relentlessly, the need for fuller use of the powers placed in their hands by Parliament to save these mothers and children. At present we are nowhere near the irreducible minimum in either of these mortalities.

We can make this picture yet more real by taking concrete cases: which I quote by permission from Mr. Wal. Hannington's book on "The Problem of the Depressed Areas".

Case I. Mr. E. P. of Aberdare, Glamorgan. Number in family, man, wife, and four children, aged two, four, six, and nine years. Income per week from unemployment allowance is 38s. Conditions in the home are that all cooking has to be done on an open fire; there is no gas-stove. There are no decent cupboards or meat-safes. By way of utensils the family have one kettle with a broken spout, three saucepans, one frying-pan, and one pot. There are two bowls with holes stopped up with pieces of rag. No dinner-plates, no bread knife. Only four cups and two saucers for six in the family, two knives and two spoons, three forks, and four small plates. The floor of the kitchen in which they live is bare stone, with no lino or carpet covering. There is only one blanket in the family, no sheets, no pillow-cases. Articles of clothes such as old coats are mostly used for bed-covering. A rent of 8s. 6d. a week is paid, 1s. 3d. insurance, 3s. 4d. coal, 1s. 6d. light, and an average of 2s. for boot repairs, etc., leaving £1 1s. 5d. for food, clothes, and miscellaneous expenditure for six people. There are only three chairs for six people. Two spring mattresses in the bedroom are broken, and the

room has no furniture in it besides the bed, not even a table on which to place a candle. There is electric light in two out of the four rooms, but one is completely empty.

Case II. Mrs. M. J. of Swansea. The family consists of father, mother, and eight children, aged fourteen, thirteen, twelve, ten, seven, five, three, and five months. Income from all sources is £2 5s. a week. For this family of ten there is only one kettle, one saucepan, one frying-pan, and no other cooking utensils. There is only one washing-up bowl, which has to be used for various purposes. In table utensils they have six cups and saucers, two knives, three forks, four teaspoons, one tablespoon, and eight plates. There is no lino on the floor, but only odd bits of coco-matting. The scrubbing-brushes have been worn out and the family is too poor to buy new ones; there are no boot-brushes and only one pail. The whole family is badly in need of wearing apparel of all descriptions. The children have had to be kept home from school frequently on very wet days because of the state of their shoes. Mrs. M. J. in her statement on the questionnaire says: "It is impossible to state within a small space our real position. Our whole family is definitely under-fed and under-clothed. Rent, light, fuel, and insurance, etc., takes 20s. weekly, leaving us 25s. to maintain the whole family in every other respect." This family of ten live in two rooms. Repeated application has been made to the local housing authorities for a Council house, but without result, although, as Mrs. M. J. says, "Our rent is, and ever has been, paid regularly".

"Twenty-five shillings to maintain the whole family in every respect." Weigh the words carefully. One of those respects is food. Even if there were no other claims on that 25s. a week but food, what chance has a mother, however skilful, of maintaining a family of ten persons on 25s. a week? Figure it out for yourself. Think of your own child's healthy appetite, and then hear the mother in this family say to the hungry child who clamours at bed-time for a slice of bread: "If you eat it now, you can't have it for breakfast tomorrow." Then make out your own shopping list for a family of ten, not indeed on 25s., but on

all that is left out of 25s. when other inevitable charges have been met. Reckon the quantity of bread, milk, butter, vegetables, or meat that is possible. Or yet again, think, on bitter winter nights, of one blanket for a family of six.

It is, perhaps, the pitiful inventory of utensils and clothing which strikes me even more dramatically than the lack of food, revealing the starker poverty of perpetual unemployment in a neighbourhood where all one's friends are reduced from comfort to penury: in one household

“ the wife's clothing consists of one petticoat, one pair of stockings, one working skirt, one skirt for outdoors—no nightdresses and only one pair of shoes. The daughter has very little underclothing, no nightdresses; one good pair of stockings, one pair heavily darned, two jerseys—one very old, worn and thin. The husband has one pair of pants, two khaki shirts almost worn out, one singlet which is threadbare and patched, a cap, one secondhand raincoat and one pair of shoes.”

British people are not callous. No decent man, hearing such tales, and picturing the widespread misery they record, remains untouched. We are neither callous nor cruel; we are just ignorant—colossally ignorant.

An English Bishop recently declared that the number of under-fed people in England is extremely small and for the most part it is their own fault. I know that Bishop: he is a good man, but in this matter he is ignorant, even of his own neighbours' lives. He lives in an extremely prosperous town, of some 87,000 inhabitants. A friend of mine, a vicar in that same town, told me, almost as the Bishop spoke, these facts concerning a parishioner: “ father, mother, and ten children, very frugal and respectable people; weekly wage 50s. Weekly rent 10s.”

Make your own calculations on that basis. Three shillings and fourpence per head for all the family needs, including food. Would the Bishop permit his own son or daughter to live on that pittance without complaint? If you say, “ Why so large a family? ” I might ask, “ What

encouragement in birth control do poor mothers receive from Church and country?"

The matter has not been allowed to end there. Since the Bishop's remark a Council, representative of twenty local societies, under the vice-chairmanship of the former Medical Officer of Health, has conducted scientific investigations in the Bishop's city, examining the circumstances of one hundred typical working-class families. Its findings have shocked the conscience of the whole community. And the community would be still more shocked if they knew the conditions, not merely of a prosperous country town, but of an industrial area, and still more of a depressed area. Ignorance is cruel and dangerous.

* * * * *

The University of Bristol Survey recently examined living conditions in their home town of Bristol. The results of that survey lie before me, another cold scientific document without frills. I learn that, judged by the most modern test, one-third of Bristol's working-class families are deprived of the bare necessities of life: one working-class child in every five runs short of the minimum of necessary food. And Bristol is not a depressed area. Bristol is a highly prosperous and wealthy town, and the survey was made in the height of the 1937 boom.

* * * * *

To speak of justice in face of intolerable misery is absurd. Multitudes live under conditions of unimaginable cruelty and injustice. They are deprived of needful commodities to which by strict rights they are entitled. For the abundance which now flows from the industrial machine is not, in equity, wholly and solely the property of those who happen to "own" the land and machines, as the following argument and analysis of the past will show:—

Man achieved his present power of almost limitless production when he gave up his independence and worked in a team. Only in a team do we advance. But to enter a team is to sacrifice independence: in a team we lean on others. It is so in Alpine climbing. Man cannot

conquer the high alps alone: in a team Everest itself is threatened.

Long ago, in primitive days, man was an entirely independent creature, hunting his own food, sowing his own land, and making his own clothes. His output was small. In combination, however, with other men, his stride lengthened. No longer striving only to clothe and feed himself, he began to associate with his fellows, and to specialize his tasks. In a team his productive power increased enormously. Mankind, as a whole, grew richer, but at each fresh stage the individual lost somewhat more of independence.

Association in production at length paved the way for wholly new possibilities of wealth. Learning and science sprang into being, and scientists discovered limitless sources of power; power which multiplied man's muscles a thousandfold; power which drove the machine that science had invented; power which dispenses with all but a minimum of human aid. Machines became self-driven, self-controlled, and poor man, whose willingness, as a whole, had permitted team methods of production, found himself at last in ever-increasing numbers pushed away from the land he had given up, and then away from the machines, whose very existence was made possible by team work of the whole civilized, organized community.

Multitudes thus suffer, in their unemployment, a grave, though generally hidden, injustice. Torn from the soil, lured into associations, specialized in their tasks, they are left helpless unless admitted to a fair share in the fruits which fall into the lap of the owners of the community-produced-machine and of land made valuable by team work of the same community.

Morally this point is of the utmost importance. A further simple illustration may make it clearer.

When man tilled his own acre, leaving others to sow and reap and weave, he remained a craftsman and earned his keep, losing, however, his power to stand alone. Justice demanded that he should share equitably in the increased output. The arrival of the machine enabled man to produce vastly more than before, but it robbed him of his

craftsman's skill. The machine which displaces man is the fruit of the corporate enterprise we call science. It results from community, and a share of the increase at least is the property of the whole community and of each individual who makes up the community.

When, at last, through help of the machine, man makes not even a shoe, but only the twentieth part of it; and when, at long last, the machine makes the whole shoe with no touch from human hands, then man is indeed in a sorry plight. The team work and its product, the machine, to which he had consented, and to which now he cannot do other than consent, but which, as a member of the community which gave it birth, he has a right to consider as in part his own, has robbed him of his independence, his craft, his very maintenance, giving him nothing in return. That is the culminating point of injustice.

It is the culminating point of absurdity too. For though millions of shoes pour from manless machines, they fail to find wearers. Penniless, workless men cannot buy shoes. Injustice and folly have stalled the machine. Justice demands, therefore, that the community should own and control productive machinery, though with reasonable consideration for those who for so long have been permitted by the community to acquire an absolute right over the land and machines.

(ii) *Denial of Freedom*

THE FACTS of freedom and liberty for the individual in Britain is assumed as readily as the fact of justice, and with little more reason. The masses lack many vital elements of freedom. And in particular the freedom to choose their own work, work into which they can throw their whole heart and express to the full their own personality, be it as doctor or dustman, artist or artisan. Without the satisfaction of essential impulse all other forms of freedom are secondary and relatively unimportant. Freedom in Britain is mainly the privilege of the industrial and commercial owning classes and has an interesting history. It tends to

develop into licence and threatens society with grave dangers.

That there are, however, exceedingly valuable elements in British freedom which all to some extent share, and which were purchased at a cost which historians alone can gauge, cannot be denied.

Religious and political freedom in this country are a priceless heritage, probably enjoyed by no other land in equal measure. Britons are not penalized in public worship. No law prevents the free circulation of our sacred literature, nor restricts our right to instruct our children in the articles of whatever faith we choose to profess.

We inherit a freedom of speech and a freedom of Press which surpass those of any other land and possess incomparable value.

Freedom of the Press is a phrase lightly used. To spread opinions through the Press is a freedom enjoyed mainly but not exclusively by the rich. To own and operate a great daily newspaper is the privilege of the super-rich: those who pay the piper call the tune, and it costs a fortune to run a modern daily. That gives to the Astors and the Beaverbrooks an overweighted influence in world politics and domestic economics. The extent to which the very rich possess, through their great wealth, the real freedom of the Press, and through it sway British governments, can be gauged by readers of the Astor-owned *Times* newspaper, which in order to extend control over influential circles is supplied at half price to the poorer clergy.

All that is true. And yet our liberties both of Press and speech are things of priceless worth and must be defended with our last breath. We may lack control of mass propaganda through the possession of great daily newspapers with circulations of a million copies or more, but we still possess the liberty to publish a daily if we possess the ability to do so.

The *Daily Worker*, for instance, may be handicapped in a thousand ways. Handicapped because advertisers shun it. Handicapped because distributing agents boycott it.

Handicapped because it lacks the vast machinery necessary to produce a large-sized paper filled with latest news from distant places. Yet the *Daily Worker* is permitted. No law prohibits its circulation. The *Daily Worker* would be impossible in any openly fascist country. It is possible in England still, and despite all its handicaps exercises tremendous influence. An increasing number of readers come to know that in the *Daily Worker* they have access to information concerning the Soviet Union, for example, which no other journal gives.

The Liberal Press, also, in this country, is a power. The *Manchester Guardian* carries on its old principle of observing an independent, and usually extremely well-informed, line, and the *News Chronicle* and *Daily Mirror* are at liberty to criticize the Government. These are no light boons, and never appreciated more highly than when threatened.

Poor men and men violently critical of government and class still possess the liberty to write and print and publish pamphlets and leaflets and circulate their views.

Let no one underestimate the value of such freedom of Press or speech as we still possess, or cease the struggle to maintain it undiminished.

And we British possess other liberties of no small value. There is the liberty to refuse work or wages. Men cannot legally be compelled in Britain, as they can in Germany or Italy, to work. Of course, in nine cases out of ten hunger compels them. Earn wages or die is the frequent alternative. But if a man can find the means to live without wages for a shorter or longer time, he is still permitted in England to refuse a job. This privilege, though it suffers from the gravest limitations, is of value and can be used as a powerful weapon to raise the standard of life or prevent its decline. The liberty to refuse wages can be made formidable by combination of worker with worker in a Trade Union and serves as a powerful leverage for the welfare of the industrial classes.

Let us, however, whilst recognizing the boon of liberty of Press, speech, and refusal of work, recognize also the nature and history, and consequently the limitations, of the liberty which we possess. For not all is liberty which is

described as such, and lesser liberties often need limitation in the interest of larger liberties.

Bourgeois society acknowledges with its lips the social ideals of liberty, equality, and fraternity, and believes them to be rooted in eternal law which reason has discovered. They are right, but *bourgeois* idealists are frequently unconscious of the degree to which they have woven their own interests into these conceptions. Equality and fraternity have slipped conveniently into the background, and liberty looms large. There is historic reason for this emphasis. The commercial middle classes had been intent on freeing themselves from the social restraints of a feudal order which fettered commercial pursuits. The organic social solidarity of the countryside gave small scope for individuality. Passion for freedom was born and bred in cities and amongst the new middle classes. Struggling merchants and industrialists of the eighteenth century hardly recognized the extent to which selfish and vested interests had entered into their struggles for political and religious liberty. Successful plutocrats of the twentieth century are much more conscious and much more frank: they demand freedom for an unfettered exercise of economic power which borders on licence and chafes at all governmental restraints.

Such freedom is, in fact, highly dangerous. There is, of course, no absolute freedom, all freedom is relative. Only law can give us freedom. A freedom which consists in absence of all restraint becomes impossible if universally applied. Absence of restraint on the road, or on the high seas, paves the way to disaster. Civilized societies impose road, rail, sea, and air restraints which, though irksome to fools, are entirely consistent with the widest measure of liberty of transit for the largest number. My liberty as an individual motorist on the king's highway is not hindered because I and others, who wish to move about, must observe the laws of traffic lights.

Absence of restraint in the social order is equally disastrous. And when we are told that a man should be as little tied down as possible, whether to place, belief, morality, occupation, or religion, we reasonably grow

suspicious: the man without responsibilities or loyalties is like a tree without roots. A man who seeks freedom to administer his business entirely as he chooses, or live upon inherited wealth all his life without adding one stroke of work to the communal wealth, is not only a robber but a fool. The restraint of a task of work loyally performed nourishes life, materially and spiritually: it gives exercise to physical, mental, and moral powers.

Most will agree that restrictions on unsocial aspects of "liberty" were altogether desirable. A hundred and twenty years ago employers and employed had a wider "liberty" of this kind than today. There was less restraint on both employer and employed. A man could work for sixteen hours a day. A child could work at six years of age. A woman could work for twelve hours underground drawing truck-loads of coal along rough, wet, dark, and muddy roadways with a harness round her shoulders like a horse.

That liberty no longer exists. Neither are employers at liberty to give, in lieu of wages, a ticket entitling an employee to goods at an employer's shop where he might be cheated by specially high prices.

These "liberties" of 1820 made life a torment. They were wholly pernicious. Britons were right to abolish them. Their recrudescence in any shape or form needs resolute resistance.

We can now return, with the ground largely cleared, to the point where we recognized the value of the liberty to refuse work or wages. If we must not underestimate that value, neither must we overestimate it. How grave are its limitations is better appreciated by those who depend on wages than by those who pay them. A man may be free to refuse wages, but such refusal means that somehow he must live apart from wages. Broadly speaking, refusal is impossible precisely on this account. The worker, apart from a Trade Union, has no reserves or resources. He cannot live long without a wage, he cannot get a dole if he refuses work, he cannot set up for himself, and thus he is dependent upon those who own the means of production. He is forced to accept the wage or starve.

A man's liberty to refuse wages is thus, largely though by no means wholly, illusory.

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There is another aspect of liberty which is as of much importance as any yet discussed. Hitherto we have spoken of liberty from the angle of freedom from restraint. That is a negative angle. Such freedom is good news only for those who possess financial resources: it has a less happy message to those who lack them.

Freedom from external restrictions which would debar us from enjoying the goods of life is a very different thing from freedom of access to them. It is freedom of access to good things, freedom of opportunity, which the masses lack and which Christianity demands.

When, as an engineer apprentice, I worked and lived on 13s. a week, I was as free as any man in England to smoke cigars or visit the Riviera. No law hindered me. In other lands men suffer such restraints. Negroes, in some States, no matter how able and willing to pay for them, are debarred from certain luxuries and privileges: even the sunny side-walk of the street is prohibited ground. Not so here. I was "formally" free, as the logicians say, to do these things. And we Britons possess a wide "formal" freedom and a wide permission to enjoy at our own sweet will a multitude of luxuries and amenities.

But "formal" permission is not actual opportunity. Permission and opportunity stand poles apart. The labourer has "formal" freedom to smoke cigars. Being poor, he lacks opportunity; the "formal" permission is useless. In the matter of cigars he lacks freedom. Formal permission avails him not at all. And so it is throughout the whole of society. Real freedom, the freedom which matters, is rare. What freedom has the average British housewife among the tempting West End shops? Lack of money in the purse reduces freedom to zero for ninety-nine out of every hundred shoppers. It is the favoured few, the middle and upper classes, the men who possess both formal freedom and freedom of opportunity, who are loudest in their boasts of England's liberty, and as

keenly sensitive to any encroachment or restraint in the creation or employment of their wealth as they are insensitive to the fact that British liberty largely is a dead letter to the masses. Those who boast loudest are least active in extending the liberty of opportunity.

The British worker, then, possesses a wide formal, but



The labourer has "formal" freedom to smoke cigars.

a narrow actual freedom. He is free to go to church, and to go to the church of his choice. He is "formally" free to go to any job he chooses. He is free not to go to a job. "Formally" he is free to tell his foreman or manager, either by post or by word of mouth, what he thinks about efficiency or method in shop control at his particular factory, or about the treatment meted out to him and his fellow-workers. Of what avail, however, is all that

freedom? His opportunity is limited to his necessity to keep a job. That necessity shuts his mouth on the things that concern him most. That necessity hinders his mobility and his choice. His actual daily task, its nature and control, and his freedom within the shop matter to a worker infinitely more than the many boasted freedoms of democracy—more, for instance, than the right to vote for the candidate of his choice at parliamentary or municipal elections. His freedom to give notice and seek another job, in a day when—as is so frequently the case—a million or more are unemployed and thousands are waiting to step, on almost any terms, into the place he vacates, is obviously strictly limited; so too is his freedom to fit himself for another job if he discovers too late that his present work is unsuited to his tastes or aptitudes. A couple of weeks stand between him and starvation: his wage is accurately gauged to provide his maintenance and no more.

The tram-conductor, the turner, and the shop assistant who criticize shop management are marked men: only under the ægis of a powerful union dare they voice their complaints.

If individual freedom means “doing what I like”, expressing my personality in thought, word, and act, then more is needed than mere lack of restraint. Real freedom demands provision of opportunity for all, and a land in which the overwhelming mass of people lack adequately paid work and ample leisure to enjoy its fruits, a land where, amidst potential plenty, half the population are underfed and lack freedom of opportunity in respect of education, choice of a profession, provision for health and insurance against old age and the accidents of life, might for awhile cease to boast of the liberties they possess and begin to strive for the liberties they lack.

(iii) Denial of Creative Living

PERHAPS THE most damning feature of modern industrialism is its denial to men and women, and especially to youth, of creative life. The best things in this world are

not the most costly. The love of Nature, the companionship of books, the joy of music—these are the most accessible experiences, these cost least in money and, many suppose, they are available for all. But are they? Books need money for their purchase, and leisure and education for their profitable and enjoyable perusal. Music needs leisure and training, and love for Nature needs access to the countryside. Look back again at the table of England's poverty as Sir John Boyd Orr portrays it, and at the pictures of homes in depressed areas and ask yourself: How much chance have hundreds of thousands of my fellow-countrymen of enjoying even these least costly avenues to the abundantly creative living which Christianity demands as the birthright of all?

Imagine yourself living under the conditions that millions endure, impoverished so that you lack adequate nourishment, crowded half a dozen of you sometimes into a single room; how much would you be interested then in these simple and most abiding and most accessible experiences? How much margin of spiritual resiliency and energy would you possess to seek and care for the creative things of life, and what chance would your children possess of growing up to be the kind of people who would seek them?

There is no need to labour the point. To speak of creative living as a possibility for the mass of our countrymen is a farce. If we deplore low tastes, we had better open the avenues that lead to higher. Abundantly creative living is denied to the masses.

(iv) Denial of Fellowship

ALL HUMAN beings are at heart moral beings. The moral sense may be twisted and perverted by the circumstances of life or the immoral character of society. With war impending men may be taught the art of killing, as if killing were the supreme object of life: ferocity may be developed as a virtue and bayonet practice may teach men the last refinements of brutality.

But such things are outrages on innate moral feelings: it needs strict discipline to inculcate brutality.

An essential part of fundamental moral feelings is the sense of kinship with one's fellow-beings and with the world at large. No sense is happier than the sense of kinship or comradeship, and the obverse side of the brutality of the war machine was the comradeship in arms—a comradeship which left many a soldier with the sense of blank when his regiment was disbanded and he himself had returned to an industrial world where comradeship was less in evidence.

Part of our very feeling of the rightness of things depends upon our sense of community and comradeship. If that is wanting, we are stunted beings. If the community in which we live is at war with our highest ideals and aspirations, and clashes with our sense of what is moral and right, we suffer from feelings of frustration, and the harmony of life becomes a discord.

The world of financial capitalism produces precisely this sense of disharmony, and the root cause lies in the fact that modern industry treats men as means and not as ends. Men are like machines, and their function is to play their part in the making of profit.

I was struck during the Great War with the change in attitude of a certain young officer. He returned from the front with the exclamation: "The men were wonderful," and recounted their acts of consideration, cheerfulness, and heroism. The same officer came to me frequently before the war, when he was head of a large industrial concern, and complained bitterly of the men's hostility and ingratitude. They were the same class of men and the same class of officer. The difference lay not in rank, but in sense of community. Community within the regiment in time of danger and stress was real.

Precisely the same idea produces disharmonies within wider circles in imperialism and in possession of colonies. So long as national minorities and colonial people are used primarily as means for acquiring imperial wealth and aggrandisement, the fundamental striving after community is violated and man's moral nature to that extent frustrated.

Hence the modern man suffers disharmony not only in his industrial and commercial life, but also in his international life. The sovereignty of States and the dominance of minorities and nationalities militate against the innate hunger for fellowship. Something in men with a properly developed sense of community never can be, or never should be, happy on a train where certain carriages are reserved for one colour and others for another, like carriages in India, this for Indians and that for Europeans. Such things, whatever we may say about their necessity in peculiar circumstances, are radically wrong. Wrong, that is, if, as our Christian faith leads us to suppose, brotherhood is the truth of our humanity.

The national sense is good, and love of country is a noble virtue. But love of humanity must transcend it. The two are by no means incompatible, and both demand satisfaction in the full sense if the rightness of things is to be attained.

It is the same, finally, with the relation between the sexes. Without complete equality, without the removal of the last trace of oppression and exploitation, the full pleasure of relationship between the sexes lacks fulfilment.

To achieve real moral unity there must be complete synthesis of self with community. In such synthesis man experiences a joy impossible without it. To reach such synthesis demands constant toil and frequent sacrifice. None can enjoy the full delights of life till all enjoy them; for only when all enjoy them does our craving for fellowship find its last fulfilment.

The following are noble words of Eugene V. Debs, and they find echoes down the ages: "While there is a lower class I am in it; while there is a criminal element I am of it; while there is a soul in prison, I am not free."

BOOK II

THE SOVIET BLUE-PRINTS THE NEW SOCIETY

- 1 The New Experiment
- 2 Tsarist Background
- 3 The Programme and the Plan
- 4 The Drama of Socialist Planning
- 5 The Summons to Science
- 6 Our Heritage
- 7 "Spread Wheat North; Industry East"

I. THE NEW EXPERIMENT

FROM THIS tottering capitalistic world of storm and stress, where ancient pillars of society collapse, where morals are outraged, where science is balked, production impeded, and poverty unchecked, we turn at last to the Soviet world.

The Union of Soviet Socialist Republics, which is the correct, though for English readers the less familiar title than Russia, extends over two-thirds of Asia and the major part of eastern Europe, and possesses the largest continuous territory in the world. The Soviet Union covers a sixth of the earth's surface—the Socialist sixth—with fourteen seas of three oceans, the Arctic, Atlantic, and Pacific, washing its shores. Northwards its territory extends to within 621 miles of the Pole; southwards it approaches the equator more nearly than Gibraltar. Its climate ranges from arctic to sub-tropical: a land of polar bears and tigers; arctic moss, date palms, and bamboo thickets.

With insignificant exceptions the Soviet Union possesses every natural resource that industry demands: iron, coal, cotton; more than half the world's total oil supply, and mineral wealth as great in quantity as it is varied in kind.

This world island, as Sir Halford Mackinder once picturesquely described it, is self-sufficient; its potential wealth in rapid process of realization.

Providence surely planned Russia as the stage for the first socialist civilization. The whole world presents no setting so apt for an experiment whose success must at first inevitably ring it around with enemies.

The socialist sixth of the earth has passed the experimental stage. We are in a better position each year to appraise it. The order of Soviet society is far from perfect. In many directions the Soviet Union has a long way yet to go. Difficulties in the beginning were inevitable. The size of the Union made them appear insuperable. Naturally the new order lies open to criticism in a hundred minor points. But the major achievements of the past twenty-one years are so great, and the progress during the past five

years, when at last the regime has been completely socialized, is so colossal, that no longer can the outer world afford to ignore what is happening. Evils which in other lands frustrate science and make a mock of Christian morality melt away as the new socialist civilization of the East replaces the plutocratic order and dominance of the West.

In the Soviet Union all factories, mines, railways and shipping, land and trading organizations, are the property of the people as a whole. The economic and social life of the country is planned in the public interest. Complete equality enables citizens, irrespective of their race or nationality, to participate in governing the State according to their ability. Complete equality of sexes, "equal pay for equal work", is a fundamental law. Equal opportunity for education is provided universally, the school-leaving age is in process of being raised to seventeen, and payment is made to students at universities. Work is provided for all; unemployment is non-existent; economic crises have ceased, prices steadily fall and wages rise. The maximum working day is eight hours, the average day under seven. All workers receive a paid holiday of at least two weeks a year. Free medical attention is provided for all: workers receive wages while sick, as though they were at work. Women receive a prolonged leave of absence with full pay when off work both before and after childbirth. No citizen profits anything from the manufacture of arms. The Soviet Union stands for democracy, peace, and the right of nations to self-determination.

* * * * *

The Russian programme gripped me from its earliest formulation. Majestic in range, practical in detail, scientific in form, Christian in spirit, it has embarked on a task never yet attempted by modern or ancient State. It is a programme which thinks, not in terms of a privileged class, but in terms of each individual soul; not in terms of profit for the few, but in terms of service for all; deliberately bent on organizing the whole of life over a sixth of the earth's surface, so that a twelfth of the world's population may eventually share, each according to his need.

The thing is stupendous, and as applied to the concrete situation of life wholly new. It had been a matter of dreams for idealists, never a basis of government for statesmen. It constitutes a Magna Carta for the poor, lifting an entire people on to a higher plane of life, with a higher standard of living. At best, previously, a ladder had been let down by which the favoured few of a "lower order" might climb to privileged places amongst the privileged classes. Never before had the public as a whole been regarded on an equal basis. Production of commodities and rendering of services had been conducted or permitted, not with a view to the ascertained needs of a whole community, but as a means of profit to possessors of land and implements; resulting in poverty for some, opulence for others, and general confusion and inefficiency for all.

The Russian programme, on the contrary, embraces the community as a whole in one general plan, taking into account the requirements, in a union of 170,000,000 souls,¹ of each individual, through successive stages of life, as infant, as adolescent, as adult; in the sunshine of health and strength and in the shadows of sickness and old age. The needs of multitudes of men and women of divers nations for profitable work, alternating with adequate rest and recreation, provided with suitable working conditions as producers, and satisfaction of requirement as consumers, are now to be met by a plan scientific in formulation and comprehensive in scope.

The Soviet plan stands in vivid contrast to the planless world of capitalism, where supply of need is left to chance, where if I possess money I can buy; if not, I must continue in unrelieved want. Where private persons, or groups of persons controlling large capital resources, set men working, as they have the power to do, at jobs which provide luxuries for the few, but render thereby more scarce and costly the necessities of life for the many. Where, yet again, if in the resulting confusion I am left without money and without work, then I and hundreds of thousands in similar plight are condemned to starve in inactivity, unless saved by an

¹ The population of the Union of Soviet Socialist Republics on January 17th, 1939, was 170,467,168.

inadequate and humiliating dole. And where, even with money, I never can be quite sure, in the general planlessness, that I can get my real and essential needs supplied, or supplied in the most appropriate way. I must just take my chance amongst the millions of unorganized individuals each spending his income in his own casual way.

Service for all according to essential need, however, demands an elaboration of organization from which the most highly civilized and industrialized community might well shrink. It demands, on the one hand, a sufficiency of maternity homes; infant and junior schools and colleges; teachers, professors, inventors, and research students, with scope for the training of youth in the arts of production and organization adequate to keep them all at work when trained. It demands, on the other hand, such an elaboration of productive and distributive organization as will bring to every individual a constant flow of goods and services embracing the whole range of personal needs, from housing, food, clothes, and transit, to music, art, literature, and all cultural activities.

No less daring and no less intricate than that was the plan which from the early years of the Revolution Russia's new rulers began in its elements to formulate; and the stage for its execution was a land where an archaic and feudal system of agriculture had only at the eleventh hour permitted industrial organization to take root in certain places and on a scale totally disproportionate to the extent of Russian territory. In agriculture, industry, and education Russia lingered a hundred years behind the Western States.

2. TSARIST BACKGROUND

NO LAND, no people and no period could at first sight seem to the onlookers less propitious as a setting for this, the world's greatest experiment, even if we view that experiment in its most rudimentary initial conception. And the highly elaborated form of the plan which now lies before us was a matter of growth, the result of long years of trial and error: the completed plan, obviously, did not spring fully formed at once into the minds of leaders or community. Even in its most elementary form, however, it demanded a competent industrial organization and an adequate industrial output. The Russia of 1917 had neither. She offered to her new rulers every kind of hindrance and no encouragement at all: such scanty industrial organizations as she already possessed lying shattered, first by a war for which she was never prepared, and then by a civil war, which had brought alien armies to trample her fields and wreck her factories.

The Tsarist Russia which the new rulers inherited was overwhelmingly agricultural and had spread its net of empire over Finland, Estonia, Latvia, Russian Poland, and Bessarabia, in addition to all the eastern and southern States now included in the Soviet Union, and 80 per cent. of the entire population, even so late as 1928, were engaged directly or indirectly on the land and were faring ill. The proportion was greater in earlier years. The soil, particularly in central and south-eastern Russia, the Caucasus, and Turkestan, was as rich as most in Europe, and in the Black Earth Region is probably the finest in the world, but its agricultural yield was tragically low. Russia was still the land of the wooden plough, the sickle, and the scythe; half the ploughs in 1913 were hooked ploughs, scratching the surface in place of turning the clod. Russian methods of cultivation were mediæval. Only on the lands of the rich peasants and the large estates was there any vestige of modern machinery.

In the main the unit of cultivation was, as in China, too small for economic purposes: 138,000,000 acres out of

263,000,000 distributed among 16,000,000 peasant households, giving to each an average holding of eight or nine acres, severed as often as not into strips here and strips there, as in the manorial economy of fifteenth-century England. Peasant individualism made agricultural mechanization impossible.

Artificial manures were practically unknown: the "Russian Year Book" of 1914 estimates that each acre of cultivated land received, on a yearly average, one-sixth of a pound's weight of phosphoric acid, against Belgium's 21 pounds.

Labouring under this triple handicap, the average yield per acre of the rich Russian soil was a third of the English or German, and a quarter of the Danish, yield. The plight of the peasant was pitiful. With difficulty he survived. Like a man submerged in a duck-pond up to the lips, the slightest ripple of misfortune served to drown him. A drought—and droughts were common—a blight, a fire—and fires among wooden houses were the peasants' fiercest foe—sent him forth a wretched outcast begging his bread from house to house.

The state of the Tsarist peasant and his village has been described by many writers. Here, for example, are the words of Mr. Maurice Hindus, who, on returning from America to the village of his birth, speaks of the village beauty of his youth, now grown at thirty-five years of age into an old woman, seven of her nine children dead and another sickening: "It could not be otherwise", he added, "so long as the people lived in ill-smelling, un-ventilated one-room huts, and shared these with their pigs and chickens and calves." "So long too as mothers seldom bathed their babies, and fed them, with unwashed fingers or through artificial nipples made of dirty linen, their own chewings of black bread and potato or the inevitable *kasha*", or gruel. His village, in pre-revolution days, possessed no schoolhouse: few villagers could even sign their name.

Where houses in country places clustered into small towns, the loveliest spots were degraded by filth and confusion: "Tuapse", says Mr. Stephen Graham, and this

time I quote from a noted British admirer of the Tsarist regime, "is beautiful from a distance, but when you get into it 'tis the most untidy place that ever was called a health resort; a confusion of little streets and bad shops, dirty coffee houses, fruit barrows, and dust. Even the sea, which a mile away is jewel-like and gleaming, is stirred up and refuse strewn."

If the backwardness of the country was accidental, mainly due to inertia, the backwardness of the larger towns was deliberate. Tsarist rulers dreaded the rise of a manufacturing middle class. Enterprise was fettered. Though Russia's coal deposits were amongst the richest in the world, her output of coal in 1913 was one twenty-seventh of that in the U.S.A. Such industry as existed was entrusted in large measure to foreigners. Foreign capitalists mined the ores, acquiring as concessions from the Tsarist Government tracts of land rich in minerals. French and Belgian capitalists had control of the Donbas coal- and iron-mines; British and French of the Baku oil-wells; the control of textile and other mills and factories being shared among French, British, and German capitalists alike.

The lot of the worker was desperately hard; his hours long and wages low. Extremely low wages cannot mean anything but an extremely low level of life. It is stated that in 1912 the average yearly wage for an industrial worker was 255 rubles; for a worker in a sugar refinery 106. A ten- to twelve-hour day was normal.¹

Factory conditions were disgraceful. Men and women alike spent the long hours of the working day in buildings badly designed, badly lit, badly ventilated, and always overcrowded. Sanitation was almost non-existent.

Homes were worse than factories. An investigation in 1898, reported by the Moscow City Council, covering 16,478 lodgings in Moscow, show that 17 per cent. of the population were living under inhuman conditions:

¹ This should be compared with average annual wage of industrial workers in later years. In 1933 it had risen to 1,513 rubles (in the rubles of 1926-7); in 1938 to 3,447 rubles. The normal working day is now seven hours.

"The stairs which led down to the dens which the people inhabited are covered with all kinds of filth, the dens themselves are almost filled with dirty boards, upon which there is equally foul bedding, and in the corners there is only dirt. The smell is heavy and close. There is hardly any light, because the dens are half underground and little light obtains entrance through the dirty windows. Beneath the window it is absolutely dark; the walls are damp and covered with mould."

Only one degree less vile than the cellars were the insanitary wooden shacks on the outskirts of the towns.

Such conditions in country and town, coupled with the inadequacy of the medical service, both in numbers, quality, and equipment, amply account for a death rate of 29.4 per thousand, mounting in the case of infants to 32.7.

* * * * *

It is not hostile critics who throw the most damning light upon conditions in Tsarist Russia. It is from Russia's own Year Book of 1914 that we learn that "in 1912, out of 1,063 towns and urban settlements with a population exceeding 10,000 (the number of urban settlements was 182), only 219 possessed an organized water supply, making 20.6 per cent. of the whole number". And it is from Mr. Stephen Graham, who says "his ideal is Holy Russia, the foundation of which is the peasantry, whose framework is the Church and whose head the Tsar", that we learn most of the squalor of the peasantry and the malarial filth of towns on the lovely Black-Sea Riviera. It is Stephen Graham who assures us that not all the skill, courage, brutality, and diplomacy of officials could stem the threatening consequences of intolerable conditions of labour: that an army of adipose bribe-taking officials and engineers and myriads of the upper class batten on the public funds: or that the two maimed cathedrals of Rostov were scamped by the building contractors. It was Stephen Graham who said: "There is no such thing as a municipal conscience in Russia", and adds: "Is it not futile that Professor Metchnikov in Paris

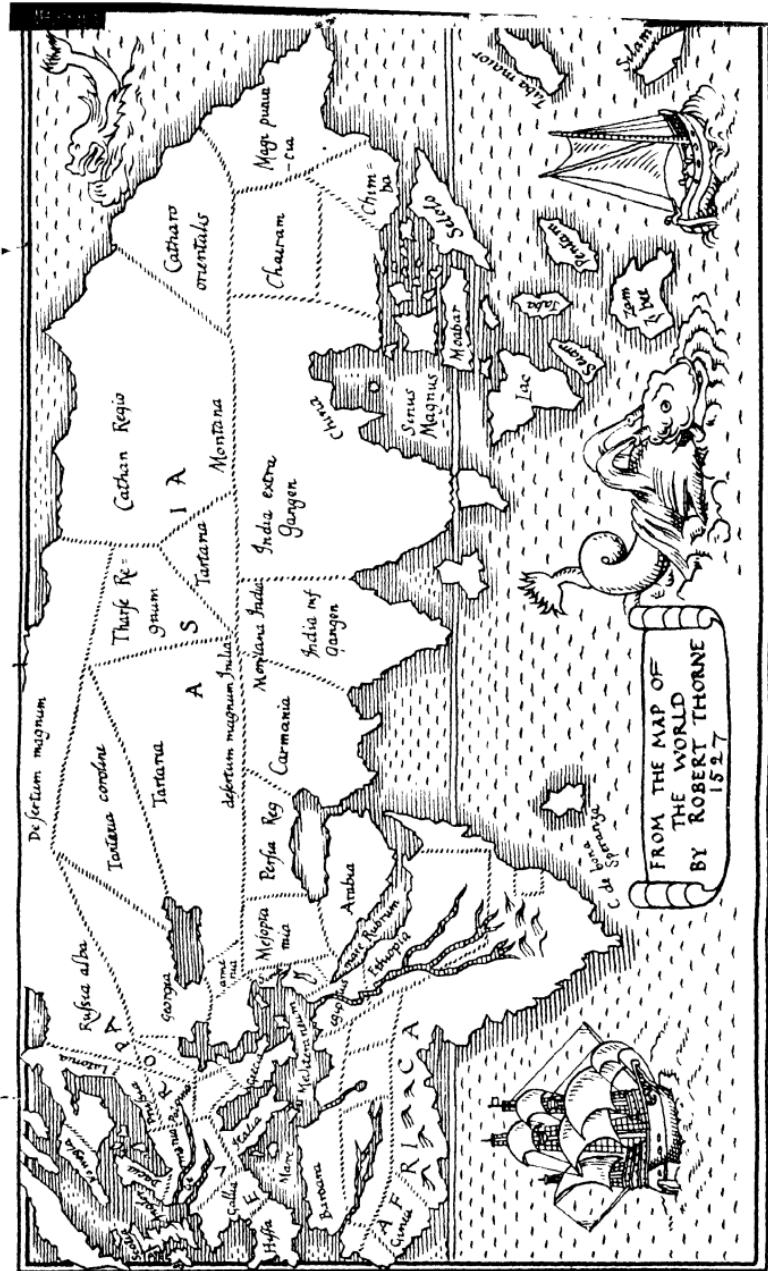
spends his energies trying to discover a diet that will prolong old age, whilst Moscow students are gasping for a decent sewer that would add a dozen years to their youth?"

Another witness shall be the Russian playwright, Tchehov, who describes society in the Rostov that was, and which contrasts so vividly with the Rostov that I now know, "with its theatre which rivals the Town Hall at Stockholm and the Radio City in New York, as amongst the finest buildings of modern times, standing at the centre of its vigorous cultural life:

"I did not understand [Tchehov writes] what these sixty-five thousand people lived for and by. I knew that Kimry lived by boots, that Tula made samovars and guns, that Odessa was a sea-port, but what our town was, and what it did, I did not know. Great Dvoryansky Street and the two other smartest streets lived on the interest of capital, or on salaries received by officials from the public treasury; but what the other eight streets, which ran parallel for over two miles and vanished beyond the hills, lived upon, was always an insoluble riddle to me. And the way these people lived one is ashamed to describe! No garden, no theatre, no decent band: the public library and the club library were only visited by Jewish youths, so that the magazines and new books lay for months uncut; rich and well-educated people slept in close, stuffy bedrooms, on wooden bedsteads infested with bugs; their children were kept in revoltingly dirty rooms called nurseries, and the servants, even the old and respected ones, slept on the floor in the kitchen, covered with rags. On ordinary days the houses smelt of beetroot soup, and on fast days of sturgeon cooked in sunflower oil. The food was not good, and the drinking water was unwholesome. In the town council, at the governor's, at the head priest's, on all sides in private houses, people had been saying for years and years that our town had not a good and cheap water-supply, and that it was necessary to obtain a loan of two hundred thousand from the Treasury for laying on water; very rich people, of whom three dozen could

have been counted up in our town, and who at times lost whole estates at cards, drank the polluted water too, and talked all their lives with great excitement of a loan for the water-supply—and I did not understand that; it seemed to me it would have been simpler to take the two hundred thousand out of their own pockets and lay it out on that object.

“I did not know one honest man in the town. My father took bribes, and imagined that they were given him out of respect for his moral qualities; at the high school, in order to be moved up rapidly from class to class, the boys went to board with their teachers, who charged them exorbitant sums; the wife of the military commander took bribes from the recruits when they were called up before the board and even deigned to accept refreshments from them, and on one occasion could not get up from her knees in church because she was drunk; the doctors took bribes, too, when the recruits came up for examination, and the town doctor and the veterinary surgeon levied a regular tax on the butchers’ shops and the restaurants; at the district school they did a trade in certificates, qualifying for partial exemption from military service; the higher clergy took bribes from the humbler priests and from the church elders; at the Municipal, the Artisans’, and all the other Boards every petitioner was pursued by a shout: ‘Don’t forget your thanks!’ and the petitioner would turn back to give sixpence or a shilling. And those who did not take bribes, such as the higher officials of the Department of Justice, were haughty, offered two fingers instead of shaking hands, were distinguished by the frigidity and narrowness of their judgments, spent a great deal of time over cards, drank to excess, married heiresses, and undoubtedly had a pernicious corrupting influence on those around them. It was only the girls who had still the fresh fragrance of moral purity; most of them had higher impulses, pure and honest hearts; but they had no understanding of life, and believed that bribes were given out of respect for moral qualities, and after they were married grew old quickly, let themselves



go completely, and sank hopelessly in the mire of vulgar, petty, bourgeois existence."

If such was the condition of Tsarist Russia, the condition of Tsarist Asia passes all description.

In size the combined areas of European Asiatic Russia were staggeringly great. During the course of four hundred years Tsarist Russia had increased its territory at the rate of fifty square miles a day. Day by day—that is, to put it concretely and dramatically, throughout the reigns of Tudors, Stuarts, Commonwealth, and Hanoverians—this immense empire had been adding to its growth at the rate of a piece of land ten miles long by five miles wide; from 800,000 square miles in 1505 to 8,500,000 square miles in 1900.

The Tsarist empire had spread out across two continents, had embraced hundreds of different peoples and tribes, speaking a hundred and fifty different languages, and its history throughout all those centuries recorded one long series of conquests and subjugations of neighbouring peoples, whom it treated with supreme contempt, thrusting them back from economic advance, and, with the exception of the Bukhara Khanate, ruthlessly suppressing their native language and institutions.

In such a land, then, and confronted with difficulties and handicaps so inconceivably great, a mere handful of leaders, with very slight practical experience, began the early stages of the world's greatest experiment. Could the scales have been loaded more heavily against them?

Apparently they could and were. For added to the sheaf of inherited problems and hindrances were two more: the war and the civil war.

Russia had plunged into a war with Germany on the side of the Allies, for which she was equipped neither by the state of her army, despite all the lavish expenditure of English and French monies, nor by the state of her industry; and still less, as it was proved after the event, by the temper of her depressed masses. Sir George Buchanan, the British

Ambassador at the Tsar's Court, had warned his home Government of Russian unrest, complaining that the Tsarist police preferred suppression of its symptoms to removal of its cause: he added that the German Ambassador predicted that the declaration of war would release revolution. Tsarist folly, however, made the gamble and plunged an unprepared people into a life-and-death struggle with the mightiest military Power in the world. Russian soldiers never lacked courage: all they lacked were rifles, artillery, ammunition, and food. Ill armed and starving, the troops manned the trenches, and after a series of bitter and colossal defeats Russia collapsed. Her officials riddled with corruption, her land robbed of its ablest workers, her railways congested and paralysed, her population starving, Russia broke, and with the break an old order passed away for ever and a new order took the stage. The army sent to quell the riots joined the rioters. Revolution sprang spontaneously into life.

Amid the uncertainties of eight months of vacillation, with a Provisional Government struggling vainly to salvage what it could from the wreckage of the past, one party knew its own mind. Though in a minority, it was compact. It had a programme and a slogan. Before the cry "Bread, Peace, and the Land", Kerensky's Provisional Government fell, and on November 7th, 1917, the Bolsheviks were in power and Soviet Government began its rule.

From the very first, and quite naturally, the Soviet claim to power was bitterly contested. Attacked from without and from within, a period of four strenuous years of warfare lay still before the new rulers. Not without a desperate struggle would the capitalist world permit experiments towards fashioning a new order of society, which, if it succeeded, would endanger all they held most dear. Success of a planned plenty was bound to spell the doom of present unplanned chaos or future planned scarcity.

Little wonder that Russia found herself ringed around with enemies, nor that amongst the bitterest of these were her former allies. In face of a new menace, as the Russian

"TOO THE SOVIET BLUE-PRINTS THE NEW SOCIETY"

revolution appeared to the Western world to be, the imperialist Powers which had just emerged from death grips with one another were now united in attacking what they chose to recognize as a common foe. Russia was invaded by Germany, England, France, U.S.A., Czechoslovakia, Poland, and Japan. Forced into battle on every front, north, south, east, and west, she emerged at length victorious indeed, but exhausted: her land ruined, her economy in a state of complete collapse; her fields overrun with soldiers and weeds, her mills and factories idle for lack of fuel and raw materials; her railways jammed with disabled locomotives, broken cars, and damaged trucks; her bridges blown up and railway tracks decayed. The flow of industrial production, always immature, now dwindled to a fifth of its pre-war volume. Agricultural production dropped to half the level of 1914: fields stood untilled and unsown; cattle were removed in one war or exterminated in another. The whole land was starving.

The difficulties which confronted the new rulers of Russia in the formulation and execution of their plan have been emphasized advisedly. For it is against this background that Russian progress must be measured. The appalling backwardness of Tsarist Russia must be understood if the Russian achievement is to be estimated aright and allowance made for the jolts along the road to it. It is against the Tsarist background of mediæval agriculture, immature industry, and general illiteracy that Russia's growth must rightly be seen.

Travellers who measure Russia by the yardstick of Western countries are bound to err. To compare Russian farm buildings and Russian fields with Denmark's superb examples; to compare Moscow with London, Kiev with Edinburgh, or Odessa with Liverpool, gives a wholly false picture of Russia's achievement. The true comparison, of course, is between the Moscow of 1927 and the Moscow of 1917, or between the Moscow of 1937 and the Moscow of 1927. The nature, pace, and quality of growth form the proper elements of comparison. The very fact that

today it has become possible to suggest at all, without grotesque absurdity, any comparison between Moscow and London, is in itself the measure of a notable change. Who would have dared the comparison in 1914?

Again, in our estimate of the achievements of the twenty-one years of Soviet rule, or of the five years during which the Soviet Union has established socialism, we shall do well to remember that not only was Russia handicapped with a mediæval agriculture, but possessed as the human element for its modernization a peasantry the most ignorant, superstitious, and backward that Europe could show; a peasantry not only using the wooden plough, but wishing for no better; a peasantry capable of fighting burning thatch in a cottage conflagration with gallons of milk, through superstitious dread of using water for the purpose.

We must remember, too, that Russian industry lacked craftsmen and skilled technicians, and that her educational system lacked teachers. The absence of skilled human instruments in the rebuilding of Russia on modern lines was Russia's heaviest handicap. Soviet rulers had to start from scratch and feel their way, or force it, step by step.

It was vain to expect Utopia and blameless advance in Soviet Russia, however noble might be the goal at which she aimed. The Soviets inherited not only a crippled and enfeebled industrial and agricultural order, and an inefficient population, they inherited also a tradition of brutality unsurpassed by any European country. The violence of the recoil is the measure of the previous oppression.

Nothing is more necessary than to distinguish between what is inherent in the new system and what is inherited from the old. For much of the past inheritance of Soviet Russia has nothing to do with the socialism she is practising. The extensive spy system of earlier days (which is still unfortunately to a certain extent proceeding), the secret police, secret courts, and political executions were not inherent in Sovietdom: they were a hangover from the days of Tsardom. Soviet Russia imagined that the break with the past had been absolute. Not so easily, however, does a people liberate itself from its social past.

Many ideas, customs, intolerances, and tolerances too, cling on unperceived by those who think that they live in days where all things are new.

It is our wisdom to recognize this and disentangle some things for praise and others for blame. Those of us who believe in absolute values will never be satisfied until the violation of these values ceases.

I would add a final caution to the Russian traveller. Travelling with a blank mind is perhaps impossible; it is certainly dangerous to attempt it. Profitable travel in Russia demands a mind well informed beforehand. Study of Russia in the process of growth makes a journey to Russia instructive; without it the journey may be gravely misleading.

Take the case of a young English railway enthusiast, travelling cursorily and hastily on the western fringe of Russian railways, comparing them with British lines—ignorant of the existence of the modern condenser locomotives which are a triumph of Soviet engineering skill, or of the fact that the Trans-Siberian track has been doubled under the Soviet regime, and that from one wagon-works alone a mile and an eighth of super-modern wagons issues every working-day—and upon the basis of his uninstructed observation contrasting the efficiency of capitalism with the inefficiency of socialism. Such a traveller, dependent wholly on what he sees and uninformed by study, will miss completely the point of social control of transit facilities.

I myself might readily have been a case in point, for in travelling from England, through Holland, Poland, and Russia to Moscow, I began the journey, as far as accommodation was concerned, with English railways, which were the best, and ended it with Russian, which were the worst. I suffered, indeed, no actual discomfort. The trains in Russia were punctual: the dining- and sleeping-cars gave me all I needed; my meals were excellent; but the rolling stock was, in some cases, a dozen years out of date. My young engineering friends, had they been with

me, would have compared it most unfavourably with the Flying Scotsmen of British railways. Rightly so. But if on the basis of that comparison they had proceeded to condemn the Soviet system of regulated government-owned transit, they would have made a most grievous mistake, in that they would be leaving out factors of supreme and deciding importance.

For Soviet Russia cares not the snap of a finger today what the judgement of the casual traveller may be; not at least to the extent of putting first-class dining-coaches on to the railways which link up with western Europe in order to impress the westerner. Some of its dining-coaches and some of its sleeping-cars rival our best. Some linger far behind us. Soviet Russia has, however, other and wider aims than petty rivalries, and only the study of its railway system and its development as a whole can reveal them. Soviet Russia strives with all its energies, and with wide success, to correct the lop-sided nature of its transport and productive system; to re-think it out and re-work it out as a whole, marking time in the west and advancing with astonishing rapidity eastward and southward. The Soviets are pioneering in a new world. It is idle to expect them to fuss about the comforts of an old order, either for themselves or for foreign visitors.

Soviet Russia aims at a balanced transport system, a balanced network of railroads, motor roads, air lines, and waterways, serving an equally balanced and far-extended industry. The uninstructed traveller knows nothing of all this: he may therefore form a judgement of Russia much further from the truth than the man who never leaves the British Museum. His eyes deceive him, for he sees the lesser half of the picture and takes it for the whole.

3. THE PROGRAMME AND THE PLAN

IN ITS broad outlines planned production, which aims at the provision of consumable commodities, and the capital machinery which produce them, for the benefit, not of the few, but of all, giving to each freedom from exploitation, equal opportunity for work, leisure, education, and security, is capable of simple statement. Its outworking is the most complex and intricate scheme in the whole range of human enterprise.

The plan arose naturally and inevitably from the revolutionary leaders' determination to produce a "classless State". The idea of a "classless State" is the acorn from which the highly organized planned production of the present regime sprang. On its negative side, a "classless State" is one in which none is at liberty to employ the labour of others for his own enrichment. On its positive side it postulates a State where social needs are provided for all on an equalitarian basis. This was never intended to mean strict equality, save at the end of a very long process. It left freedom, for instance, for inequality of wage. The "classless State" implied a contribution of work from all, together with provision of a share for all in the communal production.

If, however, the needs of all are to be considered, it follows that production, as well as distribution, must be adjusted to supply those needs. The regulation of production must not be left to the whim of individual producers, nor to groups of producers. That was why the instruments of production must be vested in public, not private hands.

In a word, it is not the interest of the producers at all which must be considered first and foremost, but the interest of consumers. The consumers and their need are the pivot around which productive industry should and must revolve. Consumers must be consulted, and consumers' needs must be ascertained. In proportion to the

relative importance and urgency of those needs, goods must be supplied. Data to gauge those needs must be collected and then weighed need against need.

When it has been determined in which order and to what extent the various needs are to be supplied, then orders can be issued to producers specifying what commodities and in what quantities goods shall be produced. In that way factory workers and groups of factory workers, peasants and groups of peasants, will know what, where, and when to produce. There will be no glut, because need has been gauged; no slump, no boom, no unemployment.

Putting it more precisely and concretely, though not with scientific exactitude, the method of estimating need in the earliest stages of the revolution was somewhat like this: Two things stood out as of paramount importance: national safety and the power to produce. The nation, we must recollect, was starting at scratch: industry had shrunk to an insignificant trickle, industrial plants were destroyed, fields laid waste. The nation was short of a host of commodities, but war supplies were pre-eminently needed.

A war on seven fronts was proceeding. If that war was lost, all was lost. The bulk of Russian industrial energy therefore must be turned, and turned immediately, to the provision of war supplies.

The second need was closely allied to the first. Soviet Russia must have capital goods. The Soviets, that is, must have the machinery essential for the manufacture of goods: machines to make armaments and railway stock and consumable goods. Russia, up till now, had been dependent on foreign countries for the supply of essential goods. This supply had, in the main, ceased. At any moment it might wholly cease. Russia must strain every nerve to make herself independent of foreign lands. And for provision of her capital goods Russia could not depend on foreign financial assistance. She must expand her own business, as it were, out of her own immediate savings. That involved prolonged and necessary hardship. There was bound to be a drastic tightening of the belt.

Yet, for all that, men cannot live by capital goods and armaments alone. Men cannot eat rolling-mills, blast-furnaces, and electric power-stations. Men need bread, meat, housing, clothing, schools, literature, and recreation. All the remaining energy and resources of the nation's economy, then, must be expended on the provision of these cultural and sustenance needs; which, however, were necessarily, in view of the two paramount needs of defence and capital goods, kept in short supply.

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Such, in broad outline, was the plan, as it was formulated at the Supreme Economic Council of Public Economy, which was picturesquely described by Mr. Philips Price as "the first organ in the world for carrying out in practice the theory that each citizen is part of a great human family and has rights in that family, in so far as he performs duties to it".

In the plan lay the instrument destined to fashion a new order, not in Russia alone, but at length throughout all the world. The plan was built upon those moral foundations, as Mr. Price rightly perceives, which Christianity has always demanded: foundations which recognize that society is a family; that each member of society, as a child of the family, has a claim upon the family from his birth and youth upwards: but that in response each member has a duty as well as a privilege, and when he or she comes of age, can only claim the rights of the family whilst performing his or her share of the duty of the family. All must work. All must receive the fruits of work.

This vast family economy needs careful planning and faithful execution, as does every lesser family economy. Planning for family use lies at the root of both, and it would be hard indeed to imagine, or frame in simpler language, a scheme which better meets alike the demands of the Christian conscience and the dictates of a rational scientific order.

As such, the programme at least, claimed a warm welcome at the hands of Christians and scientists. Criticism as to the methods employed—the rough trampling on

human lives, the disregard of venerable and valuable traditions, and the intolerance of religious beliefs—was valid and right, but the attempt itself demanded a welcome from those who had, for centuries, preached about and prayed for just such an order based on just such principles. Had a welcome been given to the principles, then the criticisms would have carried greater weight, and many of the things criticized would certainly never have occurred. Vastly different might the course of the Revolution have been if sympathy and understanding had taken the place of hostility and armed intervention. Nothing is better calculated to drive men to desperation than when, in attempting to carry out beneficial reform, they find the whole world aligned against them. The more especially so if amongst those so aligned they discover men who had preached the same ideal, but now dreaded its concrete realization.

Vested interests strengthened the hands of the opponents of the plan in Russia; and vested interests here and in other lands enabled men to blind the Church to what was taking place under their very eyes, forcing Churchmen to concentrate upon the elements which, though in their setting perhaps understandable, were the least creditable.

There is, of course, from one point of view much to be said for the fears felt by the vested interests and for the dread of the possessing classes. The immediate cost, if they look only on things and not primarily on persons, may be great. Only those, perhaps, whose scientific and humanistic vision is great enough to see the measure of the new amenities which will be available for all in an ultimately and indefinitely enriched community, could be expected to look favourably on the new experiment. And only those whose love for mankind was great enough to endure the risk of present hardship, in order to enable struggling humanity to rise to its feet, could be expected to welcome eagerly so revolutionary a plan as that which regarded society as a family in this extremely realistic and practical way.

But Christians were exactly those who should have had the vision and given the welcome. The failure to do so

has been a grave disservice to religion in general, and to the Christian Church in particular. Christians have suffered themselves to be blinded by the outpourings of the threatened vested interests. They have been glad to believe the worst of Russia as they have the worst of Spain, and by so doing have encouraged and actively aided those forms of financial and armament capitalism which now, as in Germany, turn and rend them, and do so on the very grounds that the Church itself is responsible for the ridiculous doctrines of the value of personality and the brotherhood of man.

* * * * *

Certain advantages more than served to offset the difficulties with which Lenin and his comrades faced their task of building up a new civilization. First, the material potentialities of the Russian Empire were immense. This sixth of the earth's surface contained more than its sixth share of the earth's riches. The Soviet Union is, as we have already seen, the land of illimitable natural resources in the matter of raw materials and water-power; forests, mighty rivers, coal, oil, iron, and a host of other ores abound. Russia can be almost wholly self-contained.

Next in importance stands the defensive and strategic position of a land possessing an enormous and rapidly growing population, and so situated that if attacked it fights on interior lines. With the masses ranged behind them, and with developed industry and agriculture to supply their needs, the Soviet Union could, if need be, defy the world.

Another favourable factor, paradoxical as it may sound, is the fact that the riches of the U.S.S.R. fall readily into no man's lap. The development of Soviet resources calls for arduous and persistent toil. But it is not now, nor has it been formerly, in the lands with favoured climates and ready-made facilities that the noblest experiments in civilization succeed best, nor there that the finest people arise. Mr. Arnold Toynbee, in his "Studies in History", relates Mr. Huntingdon's story of the naked fireless savages who wandered northwards in the summer, there to be trapped

when winter came. Some escaped, and returning home, resumed the old easy life. Others remained and braved it out, exercising the power of conscious invention, digging in the ground for shelter, gathering branches and leaves to make huts and warm beds, and wrapping themselves in the skins of the beasts they had slain. These were the savages to take the first steps towards civilization. These subsisted where they thought they were doomed. Adjusting themselves to a hard environment they grew and developed and left tropical mankind far behind in the race of life.

So has it been with civilizations in general. Areas of hidden possibilities, bleak, hard, and rude; areas where ingenuity, toil, and persistency are tested to the uttermost, and not the soft and easy lands, have given birth to great peoples. Egypt, with its fertile soil and never-failing Nile, suggests a paradise made ready for its earliest happy settlers. Not so. Pictures on ancient tombs depict another tale. Swamps and marshes inhabited by the boar, the crocodile, and hippopotamus confronted earliest Nile-land man. And between that wild and primitive scene and the peaceful fields of today lie centuries of toil. The basis of prosperity lay latent in marsh and revivifying river. Paradise lay on the far side of imagination, adventure, and toil.

Never for one moment did Lenin forget that fact and need. Russia's great bare lands, her trackless distances, and buried riches challenged the new rulers, and in that challenge supplied precisely the incentive demanded by the new experiment. For socialism, beyond all other orders, makes huge demands on character, not luck.

Finally there is a further potent psychological factor which few have perceived. Russia was the land where religion had taken a pessimistic view of life. Russian literature, also, though appealing only to the intelligentsia, had from first to last harked on the theme of the inevitability of suffering. We suffer in youth from our folly and in age from the imminence of death. We suffer from sickness and disease. We suffer from autocracy. We suffer from the very structure of the universe. Russian literature is sad

and pessimistic, and Russian religion increased the gloom, shunning happiness and preaching that inevitable suffering was the normal road to salvation.

Russia at heart panted for a gospel of happiness to counteract this pessimistic teaching and practice. Russia had been suffering for centuries from happiness-starvation, though the Russian peasantry had never wholly succumbed to pessimism and persisted in song and dance and a rough-and-ready enjoyment of life. And the strength of Lenin lay in the fact that he loathed and disbelieved in unhappiness; and flung his whole being into the scales against it. Unhappiness was intolerable. Unhappiness was contrary to nature. Unhappiness was a cardinal sin. Human suffering and unhappiness called to him with a challenge from which he never shrank. Lenin was a militant optimist. Primary in all his thinking was the belief that suffering is not an essential and unavoidable element in life, but an abominable thing that can and must be swept away. The optimism of Lenin was the gospel for which Russia longed. He had the common people with him.

4. THE DRAMA OF SOCIALIST PLANNING

So **CENTRAL** for all that Soviet Russia stands for is the significance of the Soviet plan that it demands a further section devoted to its genesis, its more developed forms, its larger principles and ruling spirit.



*If the community....lack boots....
it is futile to make spats.*

Stand back and see the thing as a whole. To concentrate on blemishes, or on cruel modes of application in the tumult of revolution, is to miss the vital points, like men peering at petty faults in great mosaics.

To Lenin the principle of the classless society existed in

clean-cut fashion. Not so the planned production for community consumption which was to give it concrete form. The clear-cut plan was slowly and painfully evolved, beginning when the earlier socialist experiments in "workers' control" of industry had failed. For fail they must, seeing that workers' control of production left unsolved the prior problems: what production did the community need, and what could it afford?

It is the needs of the community which must decide the activities of the producers. If, for example, the community as a whole lacks boots, it is futile to divert productive energy to making spats, however thorough might be "workers' control" in the spat industry.

To ascertain the needs of the community, however, demands an organization right outside the whole of industry itself; an organization which would voice directly, as the spokesman or representative of the whole community, what things the community had need of. And that involved a Plan.

Consequently, on December 5th, 1917, a body, called the Supreme Council of Public Economy, was appointed, with exceedingly wide powers, to produce general plans and estimates which should regulate the entire economic life of the country. This Plan had its eye from first to last upon the needs of consumers; whether the army, which needed supplies; industry, which needed metals and machines; agriculture, which needed ploughs and tractors, or the common man, who needed bread, boots, and books.

The Plan demanded that every individual enterprise should pass under public control; that every source of raw material, with every acre of land, should pass into public ownership.

What might have been done by purchase, or by a system of extended compensation, was done by forcible seizure in Russia. But it was done. And foremost in the doing, as far as the land was concerned, were the richer peasants who were themselves to suffer severely when, at a later date, they forcibly resisted collectivization.

We may perhaps notice in passing that should the socialist experiment otherwise approve itself, say in England

or America, it by no means follows that the method of expropriation pursued by the Soviets need be followed here. Not that expropriation, if made in the interests of the community as a whole, need be immoral. Tithe was recently expropriated from the clergy of the Church of England, and Canterbury suffered heavily. Yet Canterbury welcomed that expropriation as in the larger public interests. Expropriation, however, is not always necessary, nor always wise.

But to return. The Plan demanded, not only the ownership and control of all the resources of production, but also that the pace of production should be speeded up, in order that commodities of every kind might be available for distribution without delay.

To this end the workers needed the stimulus of a great vision and a great programme, and the genius of Lenin, perceiving this, provided the suggestion which developed at length into the Five-Year Plans.

Lenin's suggestion is contained in an interesting letter written to Krzhizhanovsky in 1920.

"Couldn't you", he wrote, "produce a plan (not a technical but a political scheme) which would be understood by the proletariat? For instance, in 10 years (or 5?) we shall build 20 (or 30 or 50?) power stations covering the country with a network of such stations, each with a radius of operation of say 400 versts (or 200 if we are unable to achieve more). . . . We need such a plan at once to give the masses a shining unimpeded prospect to work for: and in 10 (or 20?) years we shall electrify Russia, the whole of it, both industrial and agricultural."

Lenin knew the long and pinching years which lay before the Russian workers, and the need for hope in the future to tide them over the stringencies of the present. Gauging the situation with uncanny accuracy, he laid soundly the plans that now mature. Through those early years Russia endured because she lived in the future. The glorious life-to-be would compensate her for the drab life-that-was. A new political system, a new freedom, a

new emancipation for the individual, a new and speeded industrialism, and a new distribution of the products of industry on a more equitable basis—all these were fruits to be reaped in the future: and to accomplish these ends, and to overcome illiteracy and industrial inefficiency and the terrible economic losses to which they daily lead, the assets were, the zeal of the leaders, the stolid patience of the people, and the stimulus of this magnificent plan.

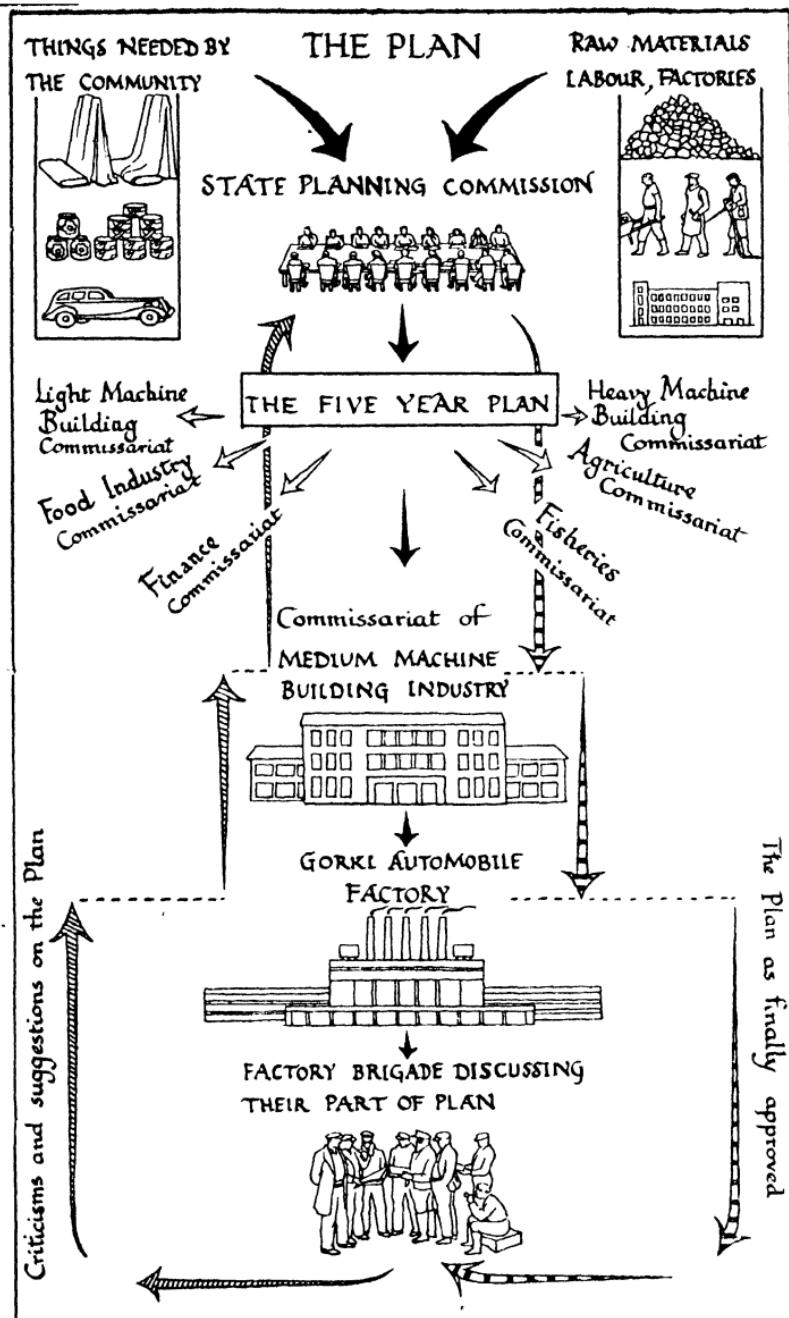
It was for that purpose that Lenin had seized upon his grandiose scheme of electrification. His judgement was right. A Commission was appointed in 1921 to work out a plan for the electrification of the whole country—the Goloero, it was called—and the State Planning Commission, commonly called Gosplan, was charged by decrees in 1921, 1922, and 1923 with working out the General Plan of all economic relationships. Concentrating on the objectives laid down by these plans, the people have steadily overcome the hardships of the earlier days and built up a magnificent industry.

Slowly the plan was formulated and fought its way through difficulties without and within. No external nation offered help. No external credits were available. Trotsky, with his followers, obstructed the scheme tooth and nail on the plea that socialism could never be erected in one country alone, nor could the U.S.S.R. rebuild its national economy unaided from without.

The initiation of the Plan, its adoption in 1928, and its subsequent establishment, involved a fight from the first and all along the line. And that may well account for the prolific use during these crucial years of warlike slogans and military terms, "shock brigades", "socialized sector", "economic front". "If an economic process", we read in the Economic Survey of the State Bank of the U.S.S.R., "takes place that is not provided in the Plan, then the Bank is in the position to signal the breach in the sector of the planned front".

* * * * *

There is centred in a series of buildings in Moscow an organization unsurpassed in the world for the extent and



importance of its operations. Its ramifications stretch on and on until they penetrate every corner of a sixth of the world's surface. No factory, no farm, no school, no theatre, no court of law, no hospital, no regiment escapes its scrutiny. By statutory law every public institution in every branch of activity throughout a union which embraces a twelfth of the human race must supply to that central office in Moscow complete data of their present and prospective needs and operations.

The mass of information that pours daily and hourly into those central offices is seized upon, sifted, sorted, and utilized by what is undoubtedly the largest staff of trained statisticians and technical experts in the world, served by thousands of clerks and assistants. (Of the competence of those statisticians even several years back Mr. Friedman, the American expert, says, "In general Russian statistics seem correct, and they check with each other during successive years and with related figures".)

That office is no dead, cold, scientific, and heartless place of red tape and officialism; it is primarily concerned with the fate of men and women, boys, and girls. Every individual throughout the whole Soviet Union has his or her place among the figures that enter those doors. If he is able-bodied his name enters one series of figures, if sick or too old or too young to work, or if working in the house at home, or engaged on study, or employed with the fighting forces, his name or hers enters other appropriate series. In this way the experts learn the total number of active workers upon whom the country can depend for making things and rendering services.

Another set of essential data is the estimation of the needs of all those same multitudes for food, clothing, housing, education, health, or leisure, and of the people as a whole for defence and for capital production in the form of mines, railways, or machines.

These figures and others continually pour in. Every enterprise in the land, large or small, central or local, educational, cultural, or industrial, must make a return not only of what it has produced during the past year, or what it expects to produce during the ensuing year, but

also what have been and are its requirements first in men and women operators and then in raw materials, in transport, or in credit facilities. Estimates accumulate as to what is being supplied or what is capable of being supplied for people to eat or wear or use.

All the transport, medical, and educational services, and other branches of activity, supply their figures, and after the whole have been digested, a bird's-eye view is taken, as it were, of what next year's output would be if every factory and farm were free and enabled to do exactly what each severally had estimated as possible.

That bird's-eye view gives the estimate of what could be done. But perhaps what could be done on the lines of this year might be inadvisable in view of altered national or social circumstances. A war might threaten. It might be necessary to divert more of the national energy into armaments. Expansion in a warlike direction might be possible without interfering with other output. The natural annual expansion which now takes place might permit more armaments without the production of less butter. On the other hand, it might not be possible. Or, yet again, it might be found safe now to let expansion in consumable commodities take place and provide a larger number of boots or gramophones, or build more maternity homes or holiday camps. That is a matter of high policy. Someone must decide.

The deciding bodies¹ are the Politbureau and the Central Committee of the Communist Party, and they reach their decisions after prolonged and careful discussion with the heads of the principal departments of the Government—the People's Commissars, as they are called.

Decisions arrived at in this way are naturally based upon extremely complicated data and very varying considerations. It is no light thing to decide what amount of labour is available, the more so especially as the population grows with such rapidity, having increased during the past eighteen years by 35,910,000, a figure which exceeds the

¹ Increasingly it is the aim and tendency under the new constitution that this function shall pass to the C.C.C. or Presidium of the Congress of Soviets, the new Soviet Parliament.

entire population of Poland.¹ It is difficult to know in what state of technical efficiency the population of next year will be as compared with that of last year. The ultimate proposals will be the result of a highly complicated balance of forces. And the decisions will take the form of deciding how best the labour force can be allocated to this task or that to meet the estimated needs. In Russia the problem is less that of finding work than of finding labour.

These decisions are not absolute decisions. They are rather in the nature of authoritative suggestions from above. They are to be sent down and met with numerous proposals from below.

The complications in such a system are obvious, the difficulty of arriving at a balance of requirements and supplies enormous. A thousand requirements demand correct estimation. What are the needs of the aggregate of factories for fuel and power? What change in those needs will be caused by fresh provision of electric power, or by higher efficiency of power units? What are the transit requirements, and to what extent will these be modified, or may be modified, by the home production in any one locality, or several localities, of that which formerly came from abroad, or was produced in a single defined centre? In view of such problems as these, was it desirable that there should be a change in the local distribution of industry, or what labour will be displaced from country districts by the mechanization of agriculture,² and how can that displaced labour be employed in the further development of this service or the production of that commodity?

It will be seen at a glance with what meticulous care the estimates and forecasts must be made and how disastrous mistakes or wrong estimates must prove to be.

¹ The increase in population from December 17th, 1926, to January 17th, 1939, rose from 147,000,000, to 170,126,000. The number of children born during the Five-Year Plans was 20 per cent. more than the total population of Roumania. And, while the birth rate rises at an unprecedented rate, mortality has declined 40 per cent. as compared with 1913.

² Stalin makes a special appeal to collective farms to release one and a half million persons for industry during the third Five-Year Plan.

Gosplan at length submits the provisional plan, by various official channels, to all the enterprises and organizations concerned, and from which particulars had been collected.

The wheels are now reversed. Yesterday information came pulsing into the centre from every corner of the Union and from every factory and farm and school. Now the Plan, based on all that collected, assorted, and digested information, with the corrections due to considered needs of the national economy, goes pulsing back again, the requisition from every factory carefully set out, and set out in relation to the whole. The factory, the farm, the educational establishment is asked for its observations. Each is consulted.

This consultation is part of the determined policy of the Soviet Union. Each centre of activity, however small it may be, is caused to feel a full measure of personal responsibility. Perhaps the thing demanded is, in the judgement of the factory, too great, or too great unless the provision of raw material or essential parts is expedited. Or perhaps, and as often as not this happens, the estimate is too low. The factory may have developed some new and speedier process which promises an increase of output without an increase of labour, or by the elimination of that which is unessential, needs a lesser quantity of raw material.

These things are recorded and noted, and every suggestion is carefully weighed. So back again on its third journey goes the communication between centre and circumference. These local counterplans are all collected once more in the central offices and lead at length to the readjustment of the provisional Plan as a whole. A new balance is struck.

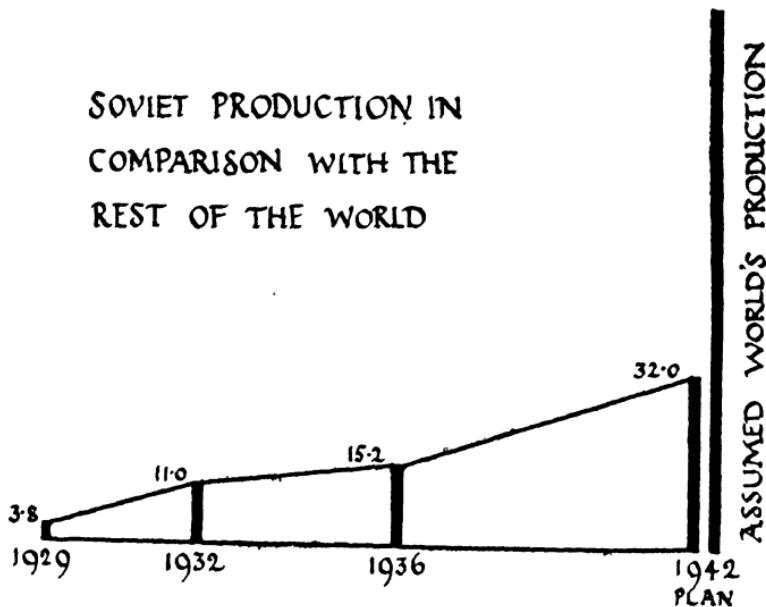
That balance constitutes the final Plan, which becomes authoritative for the next Five Years.

The successive Five-Year Plans are awaited with an eagerness unbelievable here. No financier ever hung on the declaration of the budget with half the zest that the common man in the Soviet Union awaits the publication of the Five-Year Plan. It constitutes the standard, the goal, the charter, the incentive, and the stimulus for millions of Soviet citizens.

5. THE SUMMONS TO SCIENCE

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THE PLAN is working and advances. That is the primary fact. The precise results of planned production for community consumption will concern us in a later section of this book. We must pause here for a moment and pay a general tribute to the Plan as a plan.



Whilst in the rest of the world production has hardly increased at all since 1929, Soviet production has increased some four times in the intervening ten years.

In 1929 (the capitalist peak year) Soviet industrial production was 3.8 per cent. of the rest of the world. By 1932 (the capitalist slump) it was 11 per cent. By 1936 it rose to 15.2 per cent., which shows the steady Soviet advance to be even faster than the boom phase of the capitalist cycle. The Third Five-Year Plan is expected to provide for an industrial output reaching by 1942 nearly a third of the total capitalist world's output.

“ The rate of capital development and improvement of labour efficiency in the U.S.S.R., and its long term plans for exploiting its vast natural resources, are such as to make it not an unreasonable prediction that *within the next generation the Soviet Union will be as powerful, industrially, as the rest of the world put together*. This is on the assumption that future capitalist production peaks are neither higher nor lower than the 1937 one, which itself barely exceeded the previous (1929) peak, despite re-armament.”

These are the words of Mr. J. Miller who was in Moscow from May 1936 to October 1937, on a European travelling scholarship from Sheffield University, studying Soviet economic organization.

The plan works despite the overwhelming intricacy which is inseparable from it.

This primary fact that it works is the more significant in view of the chorus of abuse and scorn and mockery which greeted its first publication and has pursued it through all the early stages of its development.

The large English daily journals, aided by subservient economists, have announced with monotonous regularity the imminent collapse of the Plan, their notes of impending doom rising at times to ill-concealed exultation, when some dark moment had arrived, or some passing danger was magnified to the proportions of disaster by hostile journalists and critics.

“ Planned production for community consumption was impossible”—so we were told. Such planning was well enough in theory: it was bound to break down in practical application. Lenin, in attempting it, had attempted the impossible. Lenin and his fellow-leaders of Soviet Russia were doctrinaires, closet philosophers, fools, whose scanty experience in practical political affairs had dared to contrive, out of the blue, vast forms of social organization which had never yet been worked in any land, nor indeed had undergone previous or preliminary test. These schemes were the product of dreamers in exile—Karl Marx, a German exile in England, and Vladimir Lenin,

a Russian exile in London and Switzerland: foolish, dangerous men, passionately dedicated to a political doctrine, and contemptuous of the masses, tampering with the delicate social organism of the State, trying out on a vast scale an untested organization and hurling into a new form of communist society a people already a hundred years behind Europe in political and industrial maturity.

A Professor of industrial chemistry once said: "If you want a difficult job done, give it to the 'damn' fool that doesn't know that it can't be done." Lenin was that "damn fool".

Lenin and his comrades, they said, had so far been dealing with airy generalities, living on plunder, or, like the camel, on its own fat. The day of their failure and defeat approached. They would meet their nemesis in the grandiose but wholly impracticable Plan they now projected.

Nothing, indeed, approaching the scale of that Plan had ever been attempted before. America, it is true, possessed immense industrial units, and it took the highest flights of her industrial organizing genius to conceive and operate them. But America's greatest units were child's play in comparison with the thing now attempted in Russia, the complications of American units were simplicity itself compared to the complicated ramifications that were involved in a plan designed to meet all the productive capacity and the whole range of needs of a union of 170,000,000 souls. "Nothing so foolish as the new Plan was ever conceived or could ever succeed. The dream of an idealist is a fatal base for a practical mode of life in industry, or agriculture, or political organization."

How often had we heard the same thing before! When Christian idealists had asked that industry should be based on service, not profit, their plea was dismissed as an impracticable dream. When, in the interests of human life, it was demanded that industry should be planned to meet the needs of consumers, and not left to the whim or personal gain of men who happened to own the machines and the land, we were warned in scandalized tones that any attempt at such a change would wreck the delicate organism of industry and finance. And when science, angered at frustration, and sick of muddle, unemployment, boom, and

slump, begged for a truly scientific planning of the plant its labours had created, it was told from the superior height of the City of London that the swing of the market provided the appropriate regulation, and was calculated nicely to meet, in the widest and freest manner conceivable, the innumerable individual needs of consumers. To tamper with this delicate machine, which no one quite understood, was the act of fools or criminals, and the whole power of the civilized world should combine to hinder them.

Anyway, we were now confidently assured by the capitalist hierarchy that the Plan fashioned by doctrinaire politicians and dreamy or violent revolutionaries would quickly prove the folly of the experiment.

Some of us were incredulous and waited on in confidence, believing alike that the scientific nature of the Plan and the moral nature of its inspiration would carry it through to successful completion; thankful that at last science and morality should be given a chance.

The threatened collapse never came. Lenin, like the "damn" fool in the Professor's tale, did not know that the experiment could not be done. He tried the Plan. And the Plan succeeded. The vast organization centred in Moscow, with its tidal wave of information and consultation flowing to and fro across a continent, setting the millions working with a will and in mighty unison, is proof of the success. Lenin—and his disciple, Stalin—had been willing to assay new methods and make new experiments, and the Russian people, with many stumbles and repeated hesitations, have persistently followed him, and now at length prove his apt pupils.

Russia is young. Literally and physically the Russia that matters today is young. Men and women in positions of authority are young. Young in years, but also young in spirit, and possessed of all the mental and moral qualities of youth. The Russian masses may be tactless like the young, they may be impracticable like the young, and at times even thoroughly cruel like the young. But also, like the young, they have unfettered imagination and flaming idealism, with a drive, a daring, a belief, and an enthusiasm which carry them over all difficulties and obstacles.

The Soviet Union sought and seeks the aid of science in every branch of human activity. No country in the world holds science in higher esteem or provides its scientists with better and more ample equipment.

This is natural and inevitable in a land where the conception of the role of science in the organization of society is new and different. In Western countries science is not regarded as a necessary part of social organization. Merchants, soldiers, lawyers, landed proprietors, or clergy have little understanding of the principles or practice of science. They distrust it or ignore it. Factory operatives join in the distrust: science for them is the source of wealth-producing and labour-saving machinery where others get the wealth and they the unemployment.

The root of the trouble lies to a great extent in the training of our politicians, and chiefly of our administrators, who are not supposed to require even a bowing acquaintance with science: the ancient classics, ancient and modern history and literature, with perhaps a modicum of economics, are deemed sufficient. This training teaches how men and affairs were managed in the past, and gives facility of speech on public platforms and skill on committees. It is excellent as far as it goes, but insufficient, especially for administrators, in view of the possibilities and achievements of modern science.

Western politicians and administrators do not, in theory at least, regard science and technology as essential parts of social organization. They can imagine a satisfactory civilization without them. The fact of the inevitable and unrelieved drudgery involved in such civilization does not daunt them.

In practice, of course, politicians know that it is necessary to organize State departments for scientific research. Science has entered into contemporary conceptions of government in our Western societies. It has not permeated them. Where we encourage science, we do it with half a heart.

Tsarist Russia was many steps behind even the Western countries in its attitude to science. It had, indeed, its scientists and its Academy of Sciences, founded by Peter the

Great about 1724, and could boast many famous names—Mendeleev, Pavlov, Lomonosov, Karpinsky, and the like. Tsarist science, however, lacked financial support and evoked no popular enthusiasm. It was an elegant ornament and a private enthusiasm. Scientists worked on, pinched by the State and unheeded by the masses. Science was not fundamental in the Tsarist State.

Soviet social philosophy, on the other hand, finds its very roots in modern physical and biological investigation. A scientific mode of thought permeates the innermost consciousness of its rulers and percolates among the masses.

This different fundamental attitude to science naturally reveals itself in Government policy and practice. Industrial and agricultural problems are carefully considered in their relation to scientific possibilities and needs, and the appropriate research is concentrated on their solution. Hence the multitude of research stations which spring up side by side with industry and agriculture in industrial and agricultural centres.

There were 2,292 of these research institutes in the U.S.S.R. in 1938, as compared with 211 in 1918, and there are 41,000 research workers in institutes, schools, and colleges, of whom 4,000 operate in the Academy of Science alone. These numbers grow incessantly, together with the general growth in the level of the intelligentsia, which now amounts to 9,600,000 in a population of some 170,000,000.

Research in the Soviet Union is unified as well as extended. This marks a most important advance, avoiding the overlapping which duplicates work without duplicating results. The secrecy which refuses, for financial and competitive reasons, to pool inventions and discoveries, is likewise avoided, and gives place to an openness which makes knowledge acquired in one section of the field immediately available elsewhere. Science in the Soviet Union is co-ordinated from top to bottom, and all its results are pooled. Its tasks are wide and its encouragement is generous. The English chemist, G. C. Eltenton, declared, whilst he was studying the production of hydrogen carbons by ion guns, that he found opportunities for pure

research wider than in England, where the majority of chemists are in the main restricted to immediate problems, and to problems selected by their masters and in the interest of special commercial enterprises.

Eltenton's experience is interesting. After work at Cambridge as a scientist, he found employment at the Cotton Research Institute in Manchester. He visited the Soviet Union with other scientists in 1931, and was impressed by the flourishing state of Soviet scientists. He saw the "tremendous enthusiasm of the young people entering scientific life", and was touched with the solicitude the Soviet State bestows on scientists.

The contrast on his return to England was too strong. He was in possession of a good job in England and was even advanced during the cotton troubles to a higher post and salary. "But," says he, "I wanted above all to serve science, not to be a holder of some sinecure that would ensure me a living." And he continues:

"I have been working here for three years, studying the influence of ions in chemical reactions. Here I have found my vocation at last. I work hard and am proud to hold the title of the best shock-brigadier in the institute. . . . I take pleasure in the rapid progress of Soviet science, the marked rise in the quality of scientific work and the deepening interest of their subject matter. . . . My wife and children live with me. . . . Women have a better life of it here."

In the Soviet Union, again, science brings tangible benefits to all workers and disasters to none. Consequently, the people are at one with the administrators in the new enthusiasm. The whole community is eager for new knowledge and desires to keep in touch with its leading scientists. Scientific conferences, or the election of Academicians, vie with sport as front-page news, and speakers on science require the largest auditoriums when they address the public. Academician Keller says that 200,000 young collective farmers used his "Plant Life" and his "What is Chemistry?"

At a recent competition, launched under the joint

auspices of the Central Committee of the Young Communist League and the Academy of Sciences, more than 8,000 young workers in geology, chemistry, medicine, biology, and other sciences competed. 615 papers were selected for honourable mention, the highest award going to a twenty-nine-year-old Professor of Mathematics for an original and valuable piece of work. One man of thirty-four became Doctor of Geological Science and had 105 scientific papers to his credit.

This popular enthusiasm for science is fostered at the very point—the village and peasant community—where it has ever been most weak. The cottage laboratory movement spreads like a prairie fire. It is now common to find, as the normal equipment of a village community, a laboratory, where experiments in the vernalization of seed—that is, the stimulation of development before planting—and such-like work proceeds by specially trained members of the village community.

“Frustration of science” in the sense in which Professor P. M. S. Blackett uses the term is unknown in the Soviet Union. The cry “A moratorium on science” never arises in Russia, as in England or America: nor need it do so, since production is regulated and a glut is impossible so long as human need is still unsatisfied. Every man, woman, and child, therefore, in the Soviet Union, is interested in increasing the aggregate wealth which provides for the amenities, securities, and opportunities of life, and all the younger generation at least welcome science as the best instrument for achieving increased productivity.

It should be noticed with care that the Soviets have not created special sorts of science or scientific method. The Soviet scientist uses the same telescope, microscope, and spectroscope as the Western scientist. Soviet science differs in its relation to social life rather than in its technical methods or appliances. Among the Soviet people it is fundamental and encouraged with resolute enthusiasm; among capitalist peoples, after being tolerated with condescension, it is now frustrated without misgiving.

The intimate connection of science with Soviet State planning can be seen at a glance. The Plan knows that

it has to feed, clothe, and house 170,000,000 of people at the present moment, and probably 300,000,000 in forty years time. The need for bread, meat, fats, suits, boots, baths, gramophones, or motor-cars will be enormous, and the Plan must provide for it.

The size of industry, agriculture, and machinery is calculated on the estimate of need. Machines require metals, railways, and motive power. Material resources will be in constant demand. Human resources, too. Hence the many research institutes directed by exceptional men within the structure of a planned research system and the deliberate quest for a development of the particular abilities of individual scientists.

The Soviets could not rely permanently upon foreign scientists and technicians, nor accept blindly the results of foreign experiment and practice.

Soviet engineering problems differ from ours and demand different solutions. Take an example from Soviet railways. The Soviet gauge is wide because land is cheap. Our gauge is narrow because land is dear. Trains are heavier, but traffic is less frequent in the Soviet Union than here. Consequently Soviet rails must stand a heavier blow at less frequent intervals, but need less general strength than ours. The constitution of Soviet rail steel must differ accordingly. That is a problem for Soviet research. It is one problem out of many. Hence the State Planning Commission equips each industry with its own research institute to solve its own routine problems.

There is an interesting tendency to go further. Rehbinder, for instance, the director of the Laboratory of Chemical Physics in Moscow, believes that the primary function of applied science is to create new industries, not to get production out of present difficulties. It must lead not follow. It must discover new possibilities.

In his own researches on surface chemistry Rehbinder seeks indications of new industries in his discovery of new phenomena. Rehbinder is an expert in the study of surface chemistry. Surface hardness vitally affects the strength of materials. The strength of glass increases ten times if the crevices of its surface are appropriately filled up. Theoretic-

ally, solids should possess an immense strength, which they lack in practice.

At the Leningrad Physico-Technical Institute Joffe does fine work in examining the root of this weakness. Explaining it, is a step towards removing it. Removing it may give humanity materials thousands of times stronger than those now in use, with revolutionary effects on architecture, industry, and the whole world of human construction.

Many illustrations may be gleaned in the later pages of this book of encouragement given to, and assistance received from, Soviet scientists, but as immediate illustration of these facts let me describe three interesting and outstanding instances, one in the industrial, another in the agricultural and horticultural spheres and a third in applied medicine.

(ii)

In 1881 Professor Ramsay suggested a means by which, with immense economies and social benefits, coal could be turned into gas as it lay unhewn in the seams of the earth. But Ramsay was a lone scientist. The coal seams were in private ownership. Practical tests needed large expenditure. Success was uncertain. The owners would not take the risk. The Government was apathetic. Nothing was done.

Ramsay's ideas received on Soviet soil a welcome denied to them in the land of his birth. Lenin, "the dreamer", had said:

"Under socialism the application of Ramsay's method, through 'liberating' the labour of millions of miners, and so on, will permit the reducing of working hours for everyone from eight hours, to say seven or even less than that . . . will render conditions of work more hygienic, will relieve millions of workers of smoke, dust and dirt, will speed up the conversion of filthy abhorrent workshops into clean light laboratories worthy of man."

In this respect, as in so many others, nothing connected with actual life and with the material well-being and comfort of the workers was unimportant to the Soviet Union,

and in 1931 the Central Committee of the Communist Party decided to make experiments. They did so, and by February 4th, 1938, gas from underground gasification had been supplied to the furnaces of a chemical coking plant and had begun to heat its boilers. The Gorlovka station in the Donbas, at present supplying 15,000 cubic metres of gas an hour, will double this output. A much larger plant at Lisishansk is designed to supply 100,000 cubic metres per hour. Underground gasification of coal has become a practical reality.

Reduced to its simplest form, the process is as follows. One shaft is driven along the upper side of the seam to be gasified and another along the lower side. Air is conveyed from the upper passage to the lower at the face where the controlled fire consumes the coal, transforming it into gas. The combustible gases are drawn upwards and carried through pipes to the place desired.

The chief problems centre around the amount and composition of the air or air and oxygen to be admitted, in order, for example, to produce either "power" gas for firing boilers or "process" gas of high calorific value for manufacturing synthetic benzine and synthetic ammonia and for direct reduction of metals from ores without the use of a blast-furnace.

Mining and transport of coal are eliminated. Vast haulage plants are replaced by simpler and cheaper installations, and the cost of heat is reduced by half.

More important still is the effect on the lives of workers, freeing them from hard, dangerous work in the depths of the earth, and providing other useful branches of industrial production with a fresh army of workers. For no one in the Soviet Union is cast on the unemployed scrap-heap by labour-saving appliances.

(iii)

Take next an instance of the enthusiastic use of science in agriculture and horticulture, arising from the Soviet Union's determination to increase and add to the richness of its plant life.

From the earliest years of Soviet rule, Soviet expeditions

have been dispatched throughout the whole world, ransacking every land for new plants and new varieties of old plants.

These expeditions have visited, for example, within the Soviet Union itself, Armenia, Altai, Azerbaijan, and the Pamirs: outside the Union they have travelled to Persia, Afghanistan, Mongolia, Japan, Korea, India, Ceylon, Java, China, the United States, Mexico, Guatemala, Cuba, Ecuador, Peru, Bolivia, Chile, Argentine, Uruguay, Brazil, Abyssinia, Eritrea, Egypt, and other places.

The President of the Lenin Academy of Agricultural Science, Professor N. I. Vavilov, has been largely in charge of this botanical work.

Vavilov is a most remarkable man. His energy is inexhaustible. He sleeps little. He has iron nerves. A characteristic story is told of him. Once, when flying to Baku, his plane ran into a ninety-mile-an-hour gale, making a landing impossible. The airman flew for shelter to some neighbouring hills, and reached them with exhausted petrol supply. The plane had been flung about like a tossed leaf in autumn gales, but, whilst others thought of their last wills and testaments, Vavilov was seen to fall asleep in public. No form of useful activity or fruitful discussion presented itself. He utilized the time in slumber.

Under Vavilov's direction the science of botany has been approached for the first time in a really comprehensive manner, and the Soviet Union now possesses the world's richest collection of different plants. In number, variety, and exhaustive completeness it is unsurpassed. The sixty expeditions which have been dispatched have returned with 300,000 specimens of plants.

This vast collection has supplied information as to the frequency of different sorts of plants in different parts of the world. Some regions are found to possess more varieties than others. A natural inference follows. Any region which possesses the largest number of any particular species of plant has presumably had that species for the longest period of time. We may assume, therefore, that such a region is its natural and original home.

On this assumption soft wheat, rice, peas, lentils, broad beans, apricots, almonds, and other plants grew originally in south-west Asia, for they exist there in largest variety.

So oats, barley, and soya bean arose in south-east Asia ; onions, peach, olive, and fig in the Mediterranean area ; hard wheats in Abyssinia, and potatoes, tomatoes, tobacco, and sunflower in South America and Mexico.

A chance handful of Abyssinian wheat will contain as many as fifty varieties, a number as great as all the known varieties of cultivated wheat in Tsarist Russia.

These lands of origin are thus the most promising ground for collecting specimens for experimental research, and from these lands the Soviet Union has steadily collected her material.

In a noble room in an old palace in Leningrad, called "The World's Wheat-safe", the Soviet Union has collected 30,000 varieties of wheat.

Immense attention is paid to wheat; for wheat is a staple food. To extend the areas of wheat cultivation farther north, or into regions ravaged by wheat disease, is to increase the food supply. For there is no burning of wheat in the Soviet Union. Increased production means increased riches for all.

Russian wheats have excellent qualities. But they can be improved by crossing them with suitable foreign varieties and ridding them of defects such as small grain, low yield, or susceptibility to fungus attack. Thus, for example, Abyssinian wheats are early. Some Transcaucasian wheats resist rust and mildew. Dutch wheats have large grain. Afghanistan wheats resist drought.

Intensive research proceeds, crossing and counter-crossing takes place in numerous farms and experimental stations throughout the Union.

One of the younger agronomists, as the scientific investigators are called, N. V. Tsitsin, set himself the task of crossing wheat with a hardy wild plant of the wheat family in order to procure a new variety capable of withstanding cold and drought. Stalin gave him practical personal encouragement with the words: "Go on with your experiments boldly: we shall give you every support."

Tsitsin has at length produced a hardy annual wheat, not only yielding excellent harvests and capable of withstanding cold and drought, but at the same time immune from devastating wheat diseases.

In 1937, Nikolai Tsitsin, now President of the Academy of Agricultural Science, produced something more startling still—a hardy perennial wheat, a wheat which needs no



sowing, but comes up from the same root year by year like hay. It is difficult to exaggerate the importance of such a discovery, though it may take time to reap the fruits of it. I happened to be in Russia with Professor Hanson, the American horticulturist, in the year he received sample seeds of the new variety. His enthusiasm was as great as it was natural. He spoke much of the "Red Magic" of Soviet horticultural science. He and his father, the older Hanson, had an especial admiration for the work of the late Ivan

Vladimirovitch Michurin, the Union's greatest horticulturist.

Michurin was the magician who could produce, it is said, raspberries over two inches long, currants as large as cherries, giant black gooseberries, seedless barberries, tangarines that remain unaffected by the frost, and peaches that will grow under natural conditions in regions where the thermometer will fall 40 degrees below zero. In the extreme north, in a latitude nearer the Pole than Iceland, you may stand in a field where the ripe grain touches your face.

When Michurin desired to keep snow off the grain-fields of northern lands, he grew a stunted form of cherry tree which was itself immune against the icy blasts. The fruit of this cherry, which is delicious, is picked without the aid of ladders.

Michurin crossed a strawberry with a raspberry and produced a strawberry which now grows on bushes. Apple hybrids were crossed with varieties of plum and cherry.

Michurin tamed wild plants and forced them to bear fruit in a cultivated state. His fragrant roses bloom on the shores of Arctic seas.

The Soviet Union grows vast quantities of mandarin oranges without pips, due entirely to the advice of plant scientists.

(iv)

A final instance comes from the realm of medicine.

Crushed under a fallen tree-trunk on a remote mountain side a man lay bleeding to death. He had lost pints of blood.

His companions carried him back to the village.

Within an hour or two of his return a plane—summoned by radio—circled low overhead. A package supported by a small parachute descended, and the plane sped off without alighting.

The package contained bottled blood.

A life was saved.

In 1926 Moscow organized a special Institute of Blood Transfusion, the first of its kind in the world. Similar

institutes have been opened in Leningrad, Kharkov, Odessa, Minsk, Kiev, Tbilisi, and Tashkent. There are now 830 district blood-transfusion stations as well.

The President of the International Congress on Blood Transfusions emphasized the fact that the Soviet Union occupies a leading position in the science of blood transfusion. It was Soviet scientists who first discovered how to keep blood for future use. Before that discovery blood transfusion was only practised by direct contact of giver and receiver. The Soviets sent the knowledge of their method to help the Spanish Republicans in their struggle against aggression.

And there is no lack of volunteers in the Soviet Union willing to give their blood. Tanya Barova was once saved by blood transfusion. Now she offers her own blood as a thank-offering. She is examined by seven doctors to see if her blood is healthy and she herself strong enough to sacrifice good blood.

Her blood is declared fit and a third or a half pint taken. Special nourishment restores her, and she comes again in six weeks time to repeat her offering. This blood-letting in no wise interferes with her normal work.

M. Krushinsky is Moscow's most famous blood-giver. He is a book-keeper and has given his blood 103 times in the last twelve years, nearly seven gallons in all. He is athletic and feels no ill effects from his sacrifice.

6. OUR HERITAGE

THE SOVIET UNION is admirably equipped for applying science to production, since the land itself and all that it contains belong to the people. Its wealth can be explored and then exploited to the full.

The exploration began forthwith. But, in the meantime, the national work must proceed. Daily and hourly tasks awaited fulfilment. Industry and agriculture cannot halt. People must be fed, clothed, and housed: soldiers must receive ammunition. Such implements and modes of production as were inherited must be employed, even while better were being planned and fashioned. Nor could industry be redistributed immediately however illogical its present distribution might be; for the moment it must proceed in the places where it had been developed.

Whilst continuing, however, as they obviously must, along the lines of routine inherited from the past, the Soviet leaders took steps for future redistribution in three important directions:—

1. They proceeded to make an inventory of all national wealth in raw materials and power possibilities.
2. They took immediate steps to create, out of the blue as it were, an educated and technically skilled proletariat.
3. They planned a redistribution of industry which should utilize national resources, save national charges, and enrich national life.

The second of these steps deals with education, and will concern us at a later stage. It is the first task and the last, the inventory of national wealth and the redistribution of industry, that concern us now.

(ii)

An understanding of the nature and distribution of Soviet national wealth, and of the principles which guided



the action of the Soviet leaders in the redistribution of the industry which exploited it, demands at least a general understanding of Soviet geography, and must be met.

Look at the map. The Ural mountains divide Soviet Europe from Soviet Asia.

Consider Soviet Europe first.

In its centre lies Moscow city, surrounded by the Moscow region. Moscow is the capital of the Union of Soviet Socialist Republics. The capital also of the Russian Socialist Federal Soviet Republic.

North-west of Moscow lies the Kalinin Region, and farther to the north-west still lies the Leningrad Region. Meadows and forests, watered by rain from the Atlantic, are the physical features of this area; and, with access to the sea, and at the head of the Gulf of Finland, stands Leningrad, a fine old city of noble avenues and stone-built houses, bridges, and canals.

North of Leningrad, and running parallel with Finland, lies the Karelian Autonomous Republic, a land of lakes, rivers, waterfalls, and pine-covered rocks.

Northwards again, and this time beyond the Arctic Circle, lies the Kola Peninsula, a land of rounded mountains and stunted fir trees, a land jutting out into the Arctic Ocean and enclosing, on its north-eastern side, the White Sea: the land of the Saami-Lapps, on whose northern shore lies the ice-free port of Murmansk, in a position of immense strategic importance in time of war.

Return now, on the map, to Moscow. To the north-east, this time, lies the Ivanov Industrial Region, the centre of her textile industry, the Manchester of Russia. Adjacent to it and still farther east is the Gorky Region. Northward again is the Kirov Region, and beyond that again are the Northern Regions, ending in the Arctic Ocean, and with Karelia and the Kola Peninsula enclosing the White Sea with its port of Archangel. Travelling along this route from Moscow up to the Arctic, one passes from the growing industrial towns to ploughlands interspersed with birch-woods and copses and then to impassable forests of conifers, these finally giving way to the stunted trees and mosses of the Arctic tundra.

Return yet again to Moscow and travel this time west towards Poland. Here are the Western Region and the White Russian Soviet Socialist Republic, with a milder climate and maples, oaks, and limes in place of conifers.

There remains the South.

Southwards from Moscow lies the Kursk Region, and eastwards of that the Voronezh Region, and then eastwards again the Kuibishev Region, and south of it the Saratov Region, both the latter running to the Volga River. This is the fertile black-soil plain, slightly undulating and almost treeless. Southwards stretch in endless monotony the flat, treeless steppes, split up into three regions: westward lies the Ukraine, ending at the frontiers of Poland and Rumania, east of the Ukraine, the Azov-Black Sea Region, and east of that again the Stalingrad Region, through which the Volga empties itself into the Caspian Sea.

Southward again lies the Crimean Peninsula, almost surrounded by the Black Sea, whose southern coast is sheltered from the north by a mountain range, a land of sun and grapes and cypresses.

Eastwards of the Crimea lie the plains of the Northern Caucasian Area, rising to mountains in the south and separated from the Transcaucasian Soviet Republics by a wall of high mountains stretching from the Black Sea to the Caspian and dominated by the snow-capped Elbrus, the highest peak in Europe. A lovely and varied region this, with its northern plains and southern forest-clad, snow-capped mountains; with its palms and vineyards and meadows sinking down to the shores of the Black Sea.

South-westwards again lies the Transcaucasian Republics of Azerbaijan, Georgia and Armenia, the land of the Georgians, Armenians, and Turks, subtropical in climate, with sun-parched lands and rocks alternating with marshes fed by daily deluges of rain.

Turn finally to the extreme east of Soviet Europe, where the wooded Ural Mountains divide it from Soviet Asia. Across these mountains sprawl the Sverdlovsk, Chelyabinsk, and Orenburg Regions and the Bashkirian Autonomous

Soviet Socialist Republic; immensely rich in minerals of vast variety.

* * * * *

East of the Urals stretches Soviet Asia, bounded on the north by the Arctic Ocean, on the east by the Pacific, on the south by Persia, Afghanistan, Sinkiang, Mongolia, and Manchukuo, and on the west by Soviet Europe.

Look now at the map of Soviet Asia.

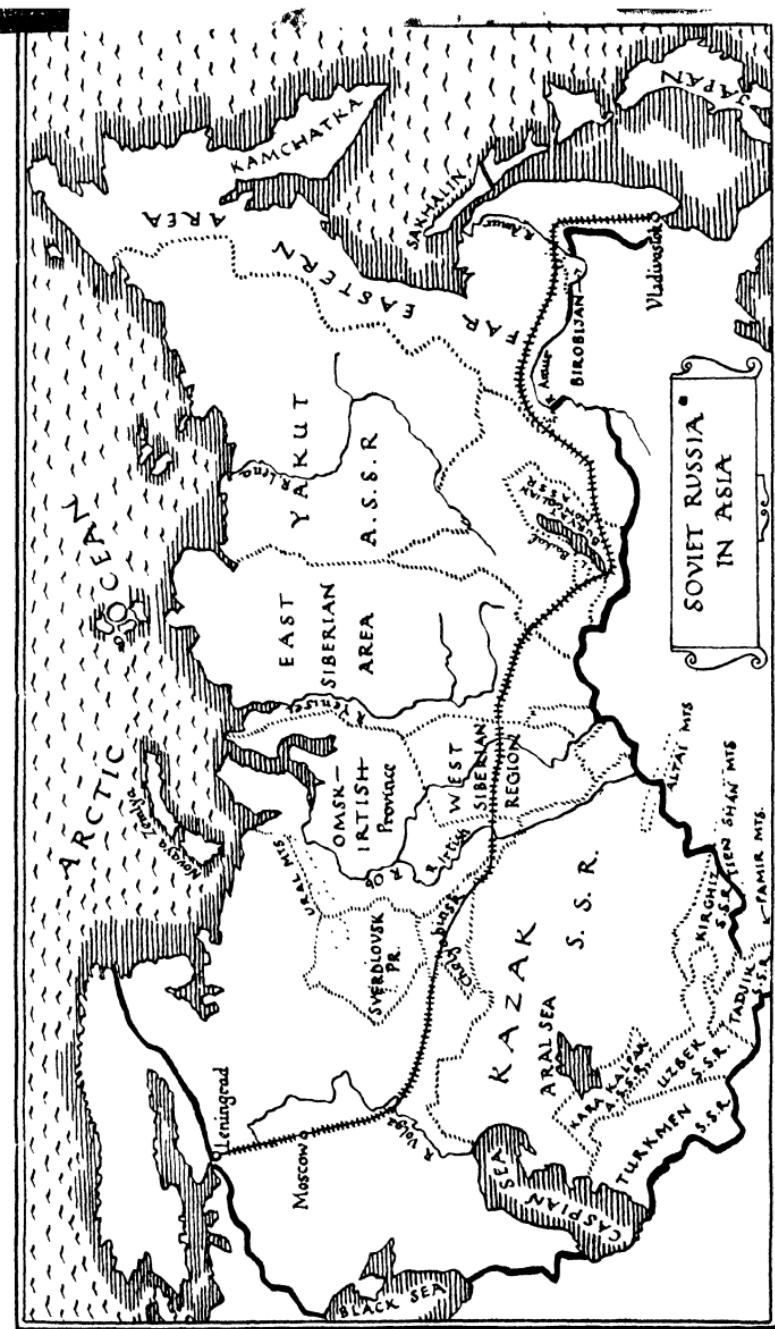
Moving eastwards from the provinces of Sverdlovsk and Chelyabinsk, which stretch across the Urals, we enter the lowlands of Western Siberia, watered by the River Ob and its tributary, the Irtysh. Northwards of the line traversed by the Trans-Siberian Railway, Western Siberia adjoins the Ob-Irtysh Area, which runs to the Arctic Ocean, a land of marshes, and dense coniferous forests or taiga. Along the Trans-Siberian Railway runs the cultivated belt of black-soil ploughlands and birch woods. Southwards again lies the steppe, rising in the south-east to the slopes of the Altai Mountains.

South of the Urals and of the Western Siberian lowlands lies the immense Republic of Kazakhstan, inhabited by nomad tribes and their herds—a treeless land with few rivers and frequent droughts.

Central Asia lies south of Kazakhstan and abuts the borders of Persia, Afghanistan, and Western China. The term Central Asia is the general name for the four Soviet Socialist Republics of Uzbekistan, Turkmenia, Tadjikistan, Kirghiz, and the autonomous region of Kara-Kalpakia.

It is a land of yellow earth, dotted with giant poplars, of cloudless skies, hot sunshine, and scanty rain. A land also of the Kyzil Kum, the Black Sand Desert. A land demanding elaborate schemes of irrigation to conserve the waters that flow down from the ice and glaciers of the Pamirs and the Tien-Shan mountains.

Now move eastwards again from the lowlands of Western Siberia, and we pass into the mountain ranges of Eastern Siberia, and on beyond them to the Far Eastern Areas and the Yakut Autonomous Soviet Socialist Republic; an immense land rolling in steep, deep folds and traversed



from south to north by the flooded waters of the Yenesei and Lena rivers, and then eastwards by the Amur.

This is a land of vast dimensions—the Yakut Republic alone is equal in size to Europe—of mighty rivers, boundless forests, and untold mineral resources, untouched as yet save in the ploughland regions adjacent to the Trans-Siberian railway, where industry increases.



The land is searched and scrutinised by geographers, geologists, mineralogists, chemists and engineers

In the Far Eastern Area the Soviet Union touches the shores of the Pacific Ocean. Its southern regions, in the plains through which the Amur and Ussuri wind their way to the Pacific Ocean, carry a large population. It is fertile land, bearing crops, such as rice, unlooked for so far north.

The northern half of the island of Sakhalin belongs to the Soviet Union, and beyond it lies Kamchatka, a mountainous and forest-clad peninsula, rich in oil, fish, and the fur of wild beasts.

(iii)

Exploration of the natural resources of this vast land is no longer left to chance, nor to the adventurous spirit of

isolated and heroic but ill-equipped and ill-rewarded scientists. Scientific discovery in the U.S.S.R. is as highly organized as any other important branch of scientific research. In the task of mapping rivers, lakes, seas, mountains, forests, plains, and deserts, or in the discovery of mineral wealth, the equipment of the Soviet expedition is both modern and complete; the aeroplane, the aero-sledge, the ice-breaker, and the motor-car replace or supplement the horse, the sleigh, and the small steam craft.

From the gloomy, forestless tundra of eternally frozen soil of the north to the sun-baked, storm-swept alps of Central Asia, the land is searched and scrutinized by geographers, geologists, mineralogists, chemists and engineers. Thousands of workers eagerly prospect for new sources of wealth, using all the resources of modern science, magnetometry, gravimetry, seismometry, and radiometry, as measurement by magnet, weight, earth tremor, or radiant energy is called.

(iv)

Of all these explorative expeditions none have been more imposing, better equipped, or more widely advertised than those which sought to wrest their secrets from the Polar regions, and none can better illustrate the scientific thoroughness of Soviet exploration or the thrill of it.

Soviet Polar expeditions had behind them a purpose beyond mere adventure and difficult achievement. The Soviets had a practical interest in the North Pole. They wanted concrete knowledge of the weather in the Polar region, its fluctuations and seasonal changes. They wanted knowledge of the nature and direction of the currents and marine life in the Arctic Ocean and the laws governing the drift of ice in the Polar basin. Data of weather conditions in the Arctic permit longer weather forecasts in Europe and Asia and are of great importance to agriculture. Knowledge of the laws which regulate ice-drift and currents clears the way for navigation along the Northern Sea Route. Knowledge of magnetic deviation makes air navigation in northern latitudes easier and safer. The

mapping of conditions at the Pole prepares the way for trans-Polar air lines between Europe and America—the North Polar air route shortening the distance and avoiding the meteorological difficulties of the Atlantic Ocean.

Polar expeditions were not snatch-victory-by-a-hazard affairs: they were organized over years and with astonishing care. From the external bright orange colour which facilitated the discovery of a lost plane in a white ice-field, to the frost-resisting and room-economy devices in the interior of the plane, with its powerful engines fed with water, oil, and petrol by hundreds of yards of piping punctuated with safety-cocks, regulating-valves, and exhaust-valves, every detail was a matter of prolonged investigation. Nothing was left to chance. The comfort and health of men making a long stay in Polar regions were a matter of special study, and an extraordinary variety of specially chosen foods was provided for a possible stay of eighteen months.

Food concentrates formed the main diet; and fifty carcasses of beef, 5,500 chickens, and three tons of vegetables were reduced to one ton of concentrated food.

Not every food suggestion, however, was adopted. Papanin, for example, one of the four who subsequently drifted from the Pole to Greenland, hinted to the Chief Navigating Officer, Spirin, that he would like to take a small live pig to the Pole, feed it on scraps, and then kill it during the Polar night.

“A small pig? But it will squeal, run about the aeroplane, and disturb our equilibrium!”

“Nothing of the kind, my good fellow; it’s quite small,” answered Papanin and departed.

Two hours later he returned with a boar weighing two hundred pounds. Papanin appeared slightly embarrassed by his companion’s size.

“Get out!” roared the navigating officer. “You or the pig—the machine can’t possibly lift you both!”

The story of the final assault on the Pole from the air is as thrilling as Polar assaults have always been. Golovin went first in a scouting plane and kept in radio touch.

The main party at the base, waiting to take off, followed

his progress with intense concentration. Dense clouds were met. Would the petrol hold out? Barely.

When the plane was sixty miles from the Pole, Schmidt said, "Call them back, we must not risk their lives. But frame the wireless message in such a way that Golovin, if he is sure of getting back, may risk going on to the Pole."

Golovin, reading between the lines, continued his flight. At 16.32 the curt message arrived:

"Latitude 90 stop Pole under us stop but covered thick layer cloud stop failed pierce through stop laid return course stop Golovin."

The first Soviet airmen had reached the North Pole in a Soviet plane.

Golovin, now dangerously short of petrol, returned. Cloud and fog baulked him. He flew by signals from Rudolf Land radio beacons. Here is his abbreviated story:

"We came down and flew under the clouds—height, about 300 feet over the water. According to our calculations, there was very little petrol left.

"Suddenly we saw ice-covered cliffs ahead. We identified it by the chart—it was Karl Alexander Land. So Rudolf Land was on our left. A few minutes later we saw the familiar outlines of the island.

"Without circling, I came full tilt to the landing-ground. The machine came to a stop on a steep slope running down to the sea. . . .

"The flight was over. . . ."

Golovin climbed down; went at once to the fuselage. With swollen hands he turned the tap of the petrol tank, and for a while gazed at the thin stream of petrol flowing from it.

"Yes, a near thing," he said.

Later, when the main party had reached the Pole and surmounted the hazard of landing, Professor Schmidt transmitted a wireless message to Moscow which becomes a classic, recording the planting of the first stable base for scientific research at the Pole:

"The first twenty-four hours of the Soviet polar station at the North Pole are over stop five tents have

sprung up on the drifting ice-floe alongside the aeroplane stop two wireless masts erected with aerial connecting them stop weather observation hut put up comma theodolite standing on tripod for observations of height of sun and determination of our position and its changes with ice drift stop first meteorological reports reached Moscow according to schedule and were included in general weather report considerably increasing the information required to forecast weather stop here comparatively warm bracket minus 12 degrees bracket sun small near ground stop four members wintering party with crew of USSR N-170 unloaded and unpacked part of expedition equipment brought by this aeroplane comma mainly wireless station and scientific instruments stop further 8 tons including wind motor comma twelve months' supply and emergency reserve food fuel and winter tent on board three other aeroplanes ready to start from Rudolf Land with first summer weather stop all of us feel splendid stop after twenty-four hours uninterrupted work slept our fill in warm sleeping bags stop five men of *Cheliuskin* included in present group involuntarily hark back to life on drifting ice-floe stop we have now taken revenge on the elements for the loss of the *Cheliuskin* stop pleased to report that we have been able to carry out instructions of Comrade Stalin and to set up at the Pole a stable base for scientific research and aviation stop our thoughts are with our great country stop Schmidt."

That, and not mere adventure or record-breaking, was the object of the expedition.

Apart from storms, life in summer time at the Pole, where the sun never sets, contradicts our expectations in many ways. I glean these quotations at random.

It was warm and wonderfully cosy in the sleeping-bags. The tents, made of silk with double walls, gave excellent protection from the wind and plenty of marvellous fresh Arctic air. The light inside the tents was unusual. "The walls were of pink silk, so that our portable houses were always in a coquettish pink half-light, like the boudoirs

of French duchesses described with such gusto by Alexander Dumas. . . .”

“ We suddenly heard the song of a bird. It was a little Polar sparrow.” Up to that time it had been assumed that there was no life at the Pole. On the ninth day Shirshov and Feodorov saw a water-bird fly past the camp.

The sounding of the depths of the Polar sea marked another dramatic moment. A crack in the ice-field was found. The water was calm, dark blue in colour, and exceptionally transparent. Bathymeters, or depth thermometers, were attached to the sounding-cable at distances of 300, 450, 600, 750 feet, and so on. Three thousand feet of cable were paid out and then hauled in. The first thermometers to reach the surface were eagerly scanned by Shirshov.

“ How exasperating ! ” he exclaimed. “ The thermometers are out of order.”

The mercury at 900 feet read — 0.62° centigrade, impossibly warm ! At 1,500 feet, however, it read — 0.48° centigrade. At 1,200 feet it recorded — 0.77° centigrade, and that was the highest temperature. There could now be no mistake. At the centre of the Arctic was a layer of warm water. Not one of the world’s scientists had ever suspected this warm submarine Polar river.

As the watchers gazed at the incoming cable they suddenly saw life in the water. Something moved. They made a grab, and out came a small crab, two inches long. The central Arctic waters, as well as the central Arctic air, were inhabited.

At length the time of parting came. Papanin and his three companions remained on the ice-floe for their long drift to the Greenland coast, and stood bare-headed as the planes left. A light mist covered the camp. On the flagstaff the dark red flag fluttered in the breeze. The plane rose, circled, saluted, and grew dim on its south-bound course.

Schmidt had taken a silent farewell of the North Pole and the Arctic station created by his efforts, the successor and precursor of numerous other Polar stations on the

islands and coasts of the Polar basin. Along the Northern Sea Route the cargo ships sail. In the words of Lomonosov:—

“ Disdaining grim destiny, the Columbuses of Russia
Will open a new path to the East amidst the ice.”

The dream of the stout Elizabethan navigators comes true. The north-east passage to Cathay is born in our own prosaic twentieth century. Schmidt is in the line of all heroic men who sought it. Schmidt had forced a passage in 1932 and again in 1933. And now he had planted a scientific station at the Pole itself. Schmidt succeeds where others failed. But Schmidt had all the resources of science behind him and all the backing of a scientifically-minded socialist State.

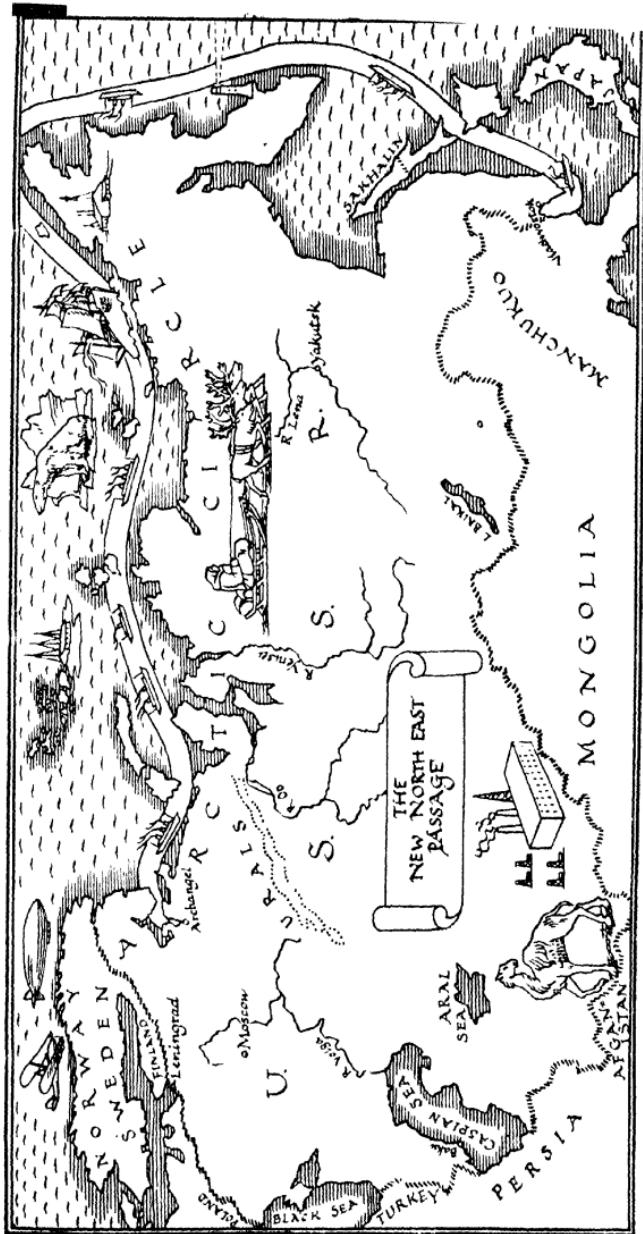
There is a charming addendum to this story. In the kitchens at Moscow a cook read the daily bulletins and sighed. No adventure for him. No heroic deed. No plaudits. Just the daily round of cooking.

The May Day rejoicings came, and the cook joined others at the annual factory feast and “listened in” with the rest to the great moment when the honours lists were proclaimed. Suddenly he started, grew pale, grew red. His name had been announced. His name amongst those honoured for the Arctic expedition! The explanation followed. He, the Moscow cook, had taken an important part in preparing those concentrates of food upon which so much of the spirits and health of the explorers depended and to which the explorers themselves had given high praise.

(v)

Less dramatic but not less useful for the agricultural purposes of Central Asia, are the expeditions which chart the physical features and weather conditions of the gigantic snow-covered mountains which divide Soviet Central Asia from the Sinkiang province of China.

In well-nigh inaccessible regions on the “Roof of the World” must be studied the laws which enable accurate forecasts of weather change and water supply in the cotton-



fields on the plains at the foot of the mountain slopes, and now a glacier observatory has been built at a height of 14,100 feet to house scientific observers throughout the whole year.

And so the geological map of the Soviet grows apace as Soviet geologists penetrate all regions. The map reveals a structure of exceptional variety and provides a reasonable explanation of the numerous minerals which enrich the Union.

In its broad features the geological story can be simply told.

Picture a deep-sea depression, extending right across the territory comprised in the present Union, and filled with soft layers of clay, sand, and lime. Through these soft layers huge mountain folds of hard rock thrust themselves up, probably due to shrinkage of the earth and wrinkling of its crust, as an orange wrinkles when it withers.

Rain, wind, sun, and frost play upon the uplifted soft layers and wear them away. The hardened and cracked earth-crust penetrates through in the form of mountains and crags.

This process gives rise to the high peaks and ranges of Tian Shan, the Altai Mountains, and the Urals, which latter are but the stumps of an earlier and greater range.

In other places the folds of the earth's crust sink and form deep depressions, such as that at Lake Baikal, the largest fresh-water lake in the world and more than 5,000 feet deep; or the Black Sea, 6,950 feet deep; or the Caspian Sea, 1,800 feet deep.

Now it is these thrust-up earth-crust mountains, these original rocks which had never previously seen the light of the sun, which were not the result of a former wearing down and re-deposit at the bottom of sea or lake, these igneous or erupted rocks, as they are called, which abound in valuable and useful minerals and make the Union the least dependent of all countries on foreign supplies. These erupted rocks, existing in such plenty in the Soviet Union, are the original storehouse of the earth's mineral supplies.

(vi)

Every expedition adds its own peculiar trophies. Tin ore from North Land; asbestos from Novaya Zemlya; non-ferrous metals from Vaigach Island; coal from Franz-Josef Land; and oil and mica from the Taimir Peninsula. The bitter Arctic is forced to yield up its secrets and its wealth.

Alpine expeditions in the south add their quota to the list: gold, asbestos, mica, radium, bismuth, arsenic, beryl, and in particular fluorite, so useful in many processes and so indispensable to optic science.

Oil and coal naturally figure as chief objects of search. Borings proceed systematically from north to south and from east to west, with results which we shall describe in their proper places.

Most dramatic undoubtedly, however, of all the recent geological discoveries, have been those made in the Khibine mountain groups, in the hitherto barren and unproductive Kola Peninsula, far north of the Arctic Circle, and in a place marked by a "white space" on the old Russian maps.

Ten years ago a few Lapp families were the only inhabitants of this grand but desolate region. Today it becomes, to use the words of Professor G. W. Tyrrell, Senior Lecturer in Geology at Glasgow University, the scene of "one of the industrial wonders of the world".

From Kandalaksha, at the head of the White Sea, a railway line now leads over a plain with scattered, stunted pines, and rocks scored by glacial action. The line mounts up among high hills like the peaks of Skye or Arran, to the raw new town of Kirovsk with its 40,000 inhabitants.

The great Khibine massif of rocks, incredibly rich in apatite and nepheline, provides a larder of unparalleled magnitude for fertilizers, aluminium, glass, tannin, and a score of other useful raw materials. The apatite, which contains as much as 40 per cent. of phosphates and is invaluable as a fertilizer, is being mined at the rate of 2 million tons per annum, and a reserve of 2,000 million tons has been established.

The Khibine massif covers an area with a diameter roughly of 40 km. Other rich massifs lie near it.

Professor Tyrrell describes his visit to the great apatite mine created entirely by Russian energy and initiative:

"A mountain side has been blasted away to a height of 1,500 feet, exposing an enormous face of the shining white mineral cut back into four or five broad ledges. Up and down these workings we traileld by means of dizzy ladders of wooden stairs with handrails, but feeling no fatigue because of the sustained interest of the rock and mineral rarities we encountered on every hand. We were then taken through the underground workings, of which there are now over 20 miles, consisting of galleries seven feet high, electrically lit, and with electric haulage. These workings are on four communicating levels, with many inclined shafts down which the ore is tipped, we could not imagine where. However, we soon understood; for we were conducted down endless wooden stairs until we arrived at valley level, and here there was a great horseshoe-shaped concrete tunnel of such size that the ordinary railway engine and freight train could penetrate to the heart of the mountain. The trucks pass under automatic hoppers which load 400 tons in ten minutes. Fifteen of these trains shipping 6,000 tons of ore, are loaded every day, bringing the production to more than two million tons a year."

It is difficult to tear oneself away from Tyrrell's narrative, in which he describes, in the Arctic, in the Urals, in Central Asia, or in Siberia, the geological treasures revealed by the zeal of Soviet geologists and operated by the energy of Soviet industrialists.

The human element, never wanting in Russia, penetrates and enlivens the paragraphs of the Scottish scientist's description of his geological investigation. The Soviet child especially and understandably intrigues him.

"Near Kusadeevo Station [he writes] our train made an enforced stop close to a Pioneers' Camp for the children of railway workers, and in a few moments the

train swarmed with a crowd of boys and girls in their uniforms of blue blouses and red scarves. Nothing would do but that the geological party should visit their camp. Of course we did so, and these jolly, laughing, unselfconscious children, with their half-dozen adult supervisors, immediately organized an impromptu entertainment for us, consisting of folk-dancing, songs, and a short dramatic piece, the music being supplied by a small boy with a large accordion. It was all a delightful, unstaged and unexpected treat which made a great impression on the party.

“Village children often accompanied us on our excursions, and collected the beautiful stones and minerals when they saw us doing so. I treasure the recollection of a little Karelian girl trudging back to the village with me over a two-mile long plank walk laid over a bog, with her apron full of large lumps of red garnet.”

Professor Tyrrell concludes by saying:

“I record it as my considered opinion that, provided the present lamentable phase of internal dissension passes [he writes at the period of the ‘trials’], and provided always that the threatened world war does not come, the U.S.S.R. is bound in a generation to become perhaps the richest and most prosperous country in the world.”

(vii)

Research in the Soviet Union is both general and specific. And nowhere in the world do theory and practice walk hand in hand so easily as in the Soviet Union.

A specific problem arose when the Kuznetz basin, at the foot of the Altai Mountains, was found to possess excellent coking coal. All that was needed for the production of cheap and excellent iron and steel and to build up a valuable metal centre in the far interior was iron ore to supplement the coking coal. Geologists had a definite task. They scoured the surrounding regions, and found ore in Western Siberia and at no impracticable distance from Kuznetz. A new centre of iron manufacture is the result, with subsidiary industries and a growing population.

Similarly, iron ore found in the Kola Peninsula, beyond the Arctic Circle, supplies iron necessary for Leningrad's machine-construction industry, giving immediate relief to the overburdened railways connecting the Ukraine with the North.

Abstract and general scientific questions occupy Soviet geologists, as they do in other lands. They do not, however, arise out of the blue, but as propounded, and brought to the surface, by practical requirements.

It may well be that owing to this stimulus Soviet geologists will advance to the first place in theory, as they already do in practice.

And even now the Soviet geologist makes full use of the unique opportunities presented by the territory of the Soviet Union for the study of the origins of organic life, especially in the earlier earth formations. For the U.S.S.R. in general, and Siberia in particular, possess abundant traces of early life embedded in its rocks and stones.

It is even now asked, with some show of reason, as the result of these researches, whether ancient Asia is not the cradle of the earth's elementary forms of life, as it appears also to be the cradle of the higher forms of animal life and man.

Recently, from a geologist's point of view, but in a period long before even the most ancient records of human history, mammoths roamed in the cold marsh-lands of the glacial tundras. They became extinct. Their fossilized remains are now unearthed, and form in Leningrad an almost incredible exhibit, dug up in Siberia out of ice where they had been in cold storage for anything between 100,000 and 1 million years. The woolly hair, flesh, and entrails of this giant creature are still preserved, but the end of its trunk is gone. The discoverers had spent a day digging out their treasure, and had not finished when night fell. They left the animal just as it had fallen long ages ago, with its head and trunk exposed. It is said that wolves came in the night and ate the end of the trunk.

We read of tinned beef of the Napoleonic wars still appearing fresh after the lapse of a century, but here was cold-storage meat fresh enough to eat after 100,000 years or more.

7. "SPREAD WHEAT NORTH; INDUSTRY EAST"

(i)

NOWHERE AND at no time has the economic map changed more rapidly, more fundamentally, or more reasonably than in the U.S.S.R. It is a change dictated neither by the hazard of fate, nor the selfishness of a group, nor the whim of an individual. Geography changes and population shifts under national direction and to meet national needs.

The industrial map of Tsarist Russia bore no relation whatsoever to the geological map, nor the map of raw materials to the map of population. Iron was not worked where iron ore occurred, nor was population thickest where raw materials were most abundant.

The Soviet Union has one map, not two. The industrial map coincides with the geological map. The map follows the Plan and graphically illustrates the new material prosperity, based upon the new scientific and moral foundations of a planned production for community consumption, where the word community embraces every individual to the farthest corner of the Union.

Twenty-one years have gone by since the Soviet Union took command: they have witnessed a redistribution of industry and agriculture from Poland to the Pacific and from the Arctic to Afghanistan.

In the days when private profit was the sole consideration, industry grew lop-sided. European Russia, which occupied but a small part of so vast an empire, monopolized the whole industrial development, leaving Asiatic Russia industrially inactive, her rich raw materials ruthlessly scraped off and borne away; her local handicrafts crippled or crushed, her artistic craftsmanship suppressed, and her population degraded and impoverished. Rich raw materials were bartered away for cheap coloured prints, to the ruin of hand-made and more lovely fabrics.

Nor did industry spread in any balanced way even in

European Russia, or bear direct relation there to the needs of man or to the existence of raw materials.

Strictly confined, then, to certain centres, and those by no means the best suited to meet the national requirements, industry developed in but one-thirtieth part of Tsarist Russia. Elsewhere it was neglected.

To economic inefficiency we must add national peril.

Concentrated in St. Petersburg, Moscow, White Russia, Ivanov, and the Ukraine, Russia's vital services lay exposed to Germany, Austria Hungary, and other European states. Russia's eggs lay in one basket, and that basket perilously near feet that might jeopardize its safety. The danger was real. Russian industry in Tsarist days was as vulnerable to enemy attack as it was ineffective in meeting the needs of national economy.

The Soviet Union aimed at immediate and radical redistribution of industry. Railways and roads thrust out north, south, east, and west to the districts where raw material was found. Agriculture penetrated into lands hitherto neglected. Marshes were drained, deserts irrigated, forests removed, controlled or re-planted, and soil enriched. New industrial centres sprang into being over-night, operating local raw materials in local factories, driven by local power-plants, and spreading culture and newness of life to local inhabitants. Robbery and exploitation of Russia's colonies ceased.

Three principles regulated the new redistribution.

First, national economy demanded that raw materials should be worked into finished goods with a minimum of transport and operating costs. For example, the smelting of iron ore incurs less costs when local fuel and local power are employed than in furnaces 1,000 miles away, with aid of coal imported from another 1,000 miles.

Secondly, industry was safer when far removed from enemy troops, enemy planes, and enemy tanks, and when widely distributed. Concentrations of industry present peculiar dangers in time of war.

Thirdly, and by no means least important, distribution of industry to the seat of raw materials was a duty owing to the inhabitants in whose area the raw materials were

found, providing them with profitable employment, education, culture, and security, and enriching the Soviet Union itself with competent citizens.

So industry moves east. The bare white spaces of yesterday's maps, void of towns, and untraversed by rail or road, denoted rural poverty, industrial stagnation, and lost opportunity. The roads, railroads, and towns which fill up the blank spaces in the maps of today tell of human industry, ample harvests, seized opportunities, and flourishing populations. Latent possibilities are discovered and exploited on one-sixth of the world's surface.

Every area is treated on its merits. And though Moscow and Leningrad had become centres of industry on political rather than economic grounds—because they formed the old imperial centre rather than because they had natural facilities for manufacture—it would be irrational for the Union to thrust them at once off the industrial map. From an absolute point of view these centres of industry continue to grow, though relatively they grow less quickly than industry in areas farther away. For though Leningrad is built on a swamp and Moscow on clay, the latter possesses her own inferior coal, which Soviet scientists enable her to use; and the former now has access to raw materials from the near north rather than from the distant south. Both towns enjoy abundant and profitable work at the finer type of goods, which demand higher grades of workmanship and are less dependent on local materials.

The centre is scientifically overhauled, the circumference created. Textile mills arise in Tadjikistan. Silk is woven in the Transcaucasus, copper worked in Kazakstan, chemicals in Tashkent. Machinery plants develop in Stalingrad, engineering shops in Komsomolsk—all of them remote from the old centres of activity.

(ii)

Agriculture in Tsarist days was as ill equipped, ill planned, and unscientific as industry. Rotation of crops was little known and less practised. Artificial fertilizers were rare.

Poor harvests were the inevitable consequence of poor seed and poor soil.

With the exception of cotton, agriculture had paid small attention to technical crops—that is, to crops used for industrial purposes. Land already occupied was inadequately farmed. New land was frequently destroyed, for when the poverty of the peasant thrust him farther and farther to the East, on to free land and virgin soil in the search for food, he succeeded in ruining forests and ploughing up ancient grasslands, with results in dust-driven soil and rain-scoured ravines as disastrous as in the United States of America.

Even in European Russia agriculture was as unbalanced as it was inefficient. The black-soil belt lying across the land south of a line drawn east and west from Kiev to Sverdlovsk, and called the “production” area, was a land of wheat-fields, and served as the nation’s larder. The region lying north of the same line produced little and drew its food from the south. Grain-trucks blocked the railway lines.

None dreamt, in Tsarist days, that the parched deserts in the south, or the swamps and marshes and frozen lands in the north, might be made, by the skill of agricultural science, to carry heavy crops.

The Soviet Union, with a statesmanlike outlook upon the needs of the whole community, and using science as an instrument in developing the resources of its vast territory, has changed the agricultural map with extraordinary rapidity.

The correct allocation of the main branches of agriculture throughout the Soviet Union, and the concentration of special regions on special crops, which Stalin had advocated in 1930, has proceeded without intermission and without delay. Grain areas have been extended to the east. Wheat has moved northwards. Cotton-fields are planted on the southern steppes; sugar-beet invades fresh regions, and flourishes in places that had never known it before; agricultural developments awaken and startle the far north, and new technical crops of many kinds are grown in new localities.

Rye, a poor grain, gives place to the richer wheat. Seeds are carefully selected and adapted to the special needs of special areas. Spring wheat moves north, and winter wheat takes the place of spring wheat on the southern steppes. The natural conditions of the various zones in the Union are exploited to the full. The old distinction between producing and consuming areas departs. Northern consuming regions grow food for themselves, freed from exclusive dependence on the south. Tractors tear down copses, drain swamps, and plough the clayey soil. Vegetables, flax, and wheat follow. An area as large as Denmark has been reclaimed from swamp and marsh, and Moscow has a larder on her doorstep.

The northern drift of agriculture is a romance in itself and one of the supreme triumphs of the Soviet agriculturist and horticulturist. In the extreme north, as we have seen, in a latitude nearer the pole than Iceland, the wheat-grain is made to yield its fruit in the brief summer season. Swift-growing, swift-ripening seeds, which make up in sunlight what they lose in sunheat, yield amazing harvests. Large fruit- and vegetable-farms are established in the Kola peninsula, which in weight of crops often surpass the record of southern areas.

In the east the newly established industries of coal, iron, oil, or machinery concentrate and increase the native population. Towns arise and grow, with inevitable repercussions on agriculture. Larger populations demand larger stores of meat, wheat, apples, and cabbages. Orchards, pastures, market-garden crops take their place upon the local map. Home-grown food saves transport. "Every region must institute its own agricultural industry so as to have its own vegetables, its own butter and milk, and in one degree or another its own grain and its own meat, if it wants to avoid getting into difficulties," said Stalin, and a decree recently promulgated, compelling all regions to produce an adequate supply of potatoes by 1939, shows that he seriously means what he says.

The total area sown with technical crops in the Soviet

Union has increased almost two and a half times since 1913, cotton and sugar-beet recording the greatest advance and the widest dispersion.

Cotton is a technical crop of outstanding importance. Cotton is the White Gold of Central Asia. Cotton drove the Tsarist Government to extend its imperial power into Central Asia, to the lands of which it was said even in pre-revolutionary days that people "talk cotton, sing cotton, play cotton, work cotton, study cotton and dream cotton". The Tsarist Government seized, but did not expand, the cotton industry. Half the cotton used by Tsarist Russia still came from abroad.

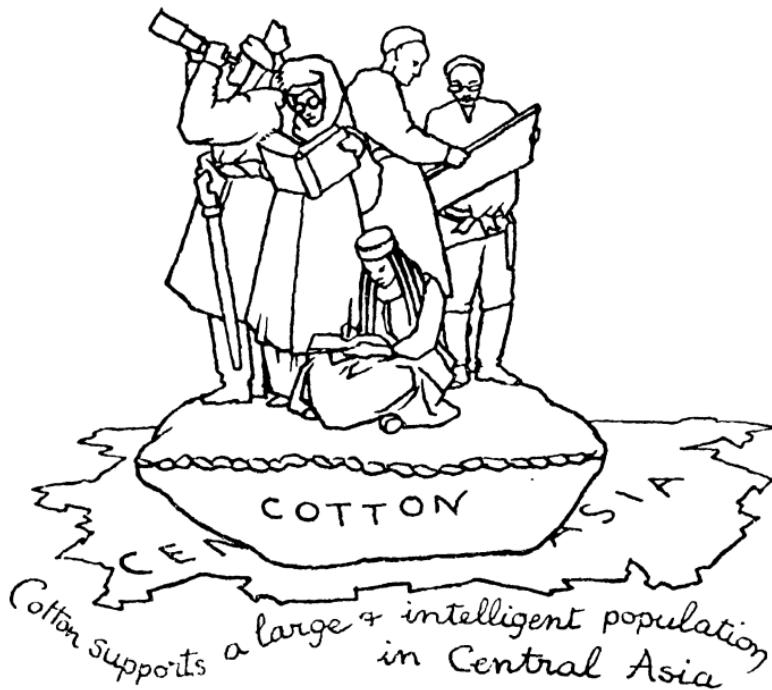
No foreign cotton, however, need enter the Soviet Union now. The U.S.S.R. grows its own supplies of a material without which it could neither clothe itself nor face war with any proper chance of success.

Tackling the problem with scientific thoroughness, the Soviets have enlarged the units of production and modernized its methods. Irrigation is overhauled. Petrol pumps displace the old camel, padding its monotonous way round and round the water-wheel. Clean concrete channels replace the old mud irrigation ditches and conserve the precious water. Seeds of new and tested quality are used in place of inferior varieties and raised in hot-beds for transplantation, with vastly improved crop results. When the cotton harvest is ripe, Soviet and American mechanical pickers sweep across the farms, sucking up the white fluffy flowers as they go.

Central Asia is the traditional home of cotton, and the Central Asian Republics of Uzbekistan and Tadzhikistan account for half the annual supply. This large quota is possible, and may be expanded further, for several important reasons. These provinces, possessing the necessary supplies of water and hot sunshine, are the natural and admirable home of the cotton plant. Again, cotton is a crop of high economic value and capable of fetching good prices. In these circumstances the concentration of a large area on a single crop is more profitable than provision of supple-

mentary crops for home consumption. The value of the crop pays for imported food- and other stuffs. Southern cotton travels north, and pays in return for the wheat and timber that travel south.

Furthermore, cotton is an excellent absorbent of labour. A ton of raw cotton probably represents more human labour than any other agricultural product. Cotton



supports a large and intelligent proletarian population in Central Asia, a fact of great importance from the Soviet angle.

Cotton spreads itself out. The cotton map expands. Cotton, in the hands of the Soviet Union, is no longer confined to the lands which have hitherto, on account of its demands for hot sunshine and abundant moisture, held the monopoly of its growth.

Soviet agriculturists have, as not the least important of their many achievements, succeeded in producing a

drought-resisting cotton, and now utilize a long chain of dry but fertile lands stretching east and west right across European Russia from the borders of Rumania, through the prairies of the Ukraine, along the eastern shores of the sea of Azov, by the north shores of the Black Sea, and across the steppes of the northern Caucasus to the delta of the Volga and the Caspian Sea. Cotton has left its old haunts, and the snowy blossom fills the dreary steppes with busy farms and the hum of mills. The new area under cotton is nearly three-quarters as extensive as all the area under cotton in pre-revolutionary Russia.

Other plants besides cotton possess fibres appropriate for weaving. Rami, Kendiv, Kenaf, and string bark, all closely related to the cotton family, produce fibres of great strength and elasticity and will grow abundantly in Kirghizia, Kazakhstan, and the northern Caucasus.

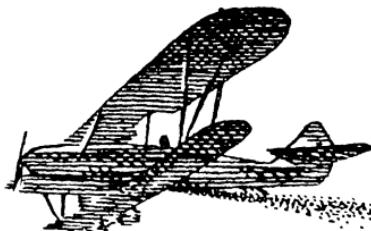
Nor is cotton the only crop which travels to new regions in the U.S.S.R. Rice is its rival.

Rice has a food value not less than that of wheat. Half China lives on rice. Japan lives on rice. Yet rice, like cotton, needs hot and irrigated lands. So at least the rice-growers had always thought.

Soviet scientists, however, never rely on what men had "always thought". They make experiments. They made experiments with rice. They planted rice in the swampy fields of the far east, where cotton will not grow, and reaped abundant harvests. They sowed rice in Kazakhstan, on the eastern shores of the Caspian Sea, and in the Ukraine, where the climate is warm and the seed can be submerged for a hundred days after sowing. Again, they reaped abundant harvests. Growing in daring, they took the seed far beyond the northward limit that dogmatism had set as its ultimate bounds. They settled a problem which had long been academically argued, and settled it by the same method that Galileo employed to settle the discussion of the speed at which pound-weights of various substances would fall, that is, by the aid of an experiment. To the astonishment and delight of all, it was discovered that rice can survive frost and will ripen in the region of Moscow, which lies as far north as Dundee.

These experiments and discoveries promise further changes in the agricultural map of the Soviet Union, for the left bank of the Volga river, dry and barren today, will glow tomorrow—when the Volga irrigation scheme is completed—with the vivid young shoots of the rice-fields. An area the size of a county promises to yield 100,000 tons of food.

Rice is not an easy crop to cultivate, or was not until the Soviets came. Men sow rice by hand, walking almost



Like some huge bird --- scattering seed as it goes

waist deep in water. The mechanized wheat-drill drawn by horse or tractor is powerless in water. So rice was still sown by hand until the Soviet scientists made more experiments.

It is instructive to visit an up-to-date Soviet rice-farm now in the sowing season. While waiting for the sower you hear a roar, and, like some huge bird with outstretched wings, a great plane swoops low and skims above the surface of the water, scattering seed as it goes. Rice on the larger farms is sown from the air and, when ripe, combine-harvesters deal with it as with wheat.

The U.S.S.R. sowed an area as large as Wales with rice in 1938.

Rubber is indispensable to the modern State. Our cars run on rubber. The mechanized army runs on rubber. Rubber has a thousand and one industrial uses. Rubber, no less than oil, is an apple of discord in the world of

nations. The British Empire is rich in rubber. Together with Holland, which possessed 30 per cent. of the world's rubber plantations, England, which possesses 30 per cent., can dictate her terms to the world.

The Soviet Union lacked rubber plantations. "We will have our own caoutchouc," said Stalin; and they have it. Rubber-bearing plants—the Tau-sagiz, the Kok-sagiz, and the Krim-sagiz—have been discovered which grow wild in the U.S.S.R. and yield as much as 38 per cent. of pure rubber. In their cultivated state they grow with greater rapidity than in their wild state, producing rubber not inferior to the tropical varieties.

The same tale of advance might be told of the sugar beet, or of that wonderful soya bean which contains albumen of the same nourishing quality as the albumen of animals and is well called the milk of the earth, or of many another new or newly developed agricultural product.

BOOK III

THE SOCIALIST SIXTH OF THE WORLD

- 1 Industrial Revolution
- 2 Burning The Past
- 3 Black Gold
- 4 Harnessing the Rivers
- 5 Steel Foundations
- 6 Our Servants the Machines
- 7 Arteries and Nerves
- 8 Socialist Harvests
- 9 Utopian Assignments

I. INDUSTRIAL REVOLUTION

TWO PARAMOUNT needs confronted the Soviet Union in the earliest days of the Revolution. First, the need for war material. Second, the need for fuel, metal, chemicals, and machinery. These latter things we call capital goods—the materials and machines necessary if we are to produce consumable goods. War materials, for instance, depend on the prior existence of capital goods: guns cannot be made without fuel, metal, chemicals, and machines.

Thus, the supreme and primary need of the moment was for capital goods. These must be produced at whatever cost in human suffering; and in a land poor at the outset that cost was bound to be great, at times nearing the breaking point.

The normal means which other lands employ for the rapid production of capital goods was not possible in Soviet Russia. No capitalist country would provide them with loans. Socialist principles forbade the plunder of colonies. Re-equipment, therefore, could be procured by one means, and by one alone: Soviet Russia must depend entirely upon her own accumulated resources. That demanded a drastic pinching, and a constant shortage of consumable goods and housing accommodation.

The problem, however, of building up industry was of such supreme importance that it overshadowed every other consideration. Its solution would brook no delay. Stalin had rightly said: "We inherited from the old regime a technically backward and ruined country reduced to semi-starvation. Ruined by four years of imperialist war, and again by three years of civil war, a country with a semi-illiterate population, primitive means of production and small oases of industry scattered in the desert of petty peasant farmsteads."

Lenin, at a still earlier date, had expressed the same thing with his usual brilliant clarity, "To save Russia we require

not only a good harvest in the peasant farms—this is insufficient. We need not only an efficient light industry, which will be in a position to supply the peasantry with the manufactured goods they require—this, too, is not enough—we must have a heavy industry . . . without the restoration and development of our heavy industries we shall be unable to organize any industry, and without organizing our industries we should perish as an independent country.” And he adds elsewhere, “ We shall be able by exercising the greatest possible economy in our state to use every kopek we save to develop our large scale machine industry, to develop electrification, etc.”.

Quotations like these show that the leaders were aware both of the urgency of the need and the cost of meeting it. The burden to be laid on the shoulders of the people was stupendous. The question was asked, “ Is it not too great to be borne ? ” Many in reply said, “ Yes ”, and urged the restoration of a modified form of capitalism. The Soviet Government, thinking otherwise, faced the situation resolutely and courageously. Soviet Russia must produce its own fuel, its own metals, and its own engineering plant. Soviet Russia must have its own heavy industry. The goal was perfectly clear, and the Government set about its task in feverish, some said dangerous, haste. Many protested. Surely it was better, they urged, to take matters more slowly and more considerately: to be leisurely was to be sure. And why, they further urged, this drive for armaments when no enemy was threatening ?

The situation of today is the peremptory answer to these questions of yesterday. The Soviet Government knew its own business, and knew it better than its Western advisers. The Soviets knew, too, that the people were willing to endure a pinch in order to build up an industry that would ultimately be a communal possession and subject to no annual capital toll.

They knew, in addition—and it was knowledge of immense importance—that without the resolute refashioning of its own industry, and without the tremendous tempo with which it had started, and which has been maintained from the earliest days up to the present time, the Soviet

INDUSTRIAL REVOLUTION

Union would never be in possession of the immense power that it wields today. Soviet Russia has only quite narrowly, and by its own Herculean efforts, escaped the fate which attends other victims of Hitler's threats and ambitions.

Happily, however, the Soviet Union knew what sacrifices its people could endure. It knew what triumphs awaited socialism and what would be the measure of capitalist hostility when confronted with successful socialist achievement. Happily, too, it recognized in time the imperial urge inherent in capitalism, the inescapable outward thrust which compels capitalists to demand new markets and new sources of raw materials, a thrust heading for capitalist and imperialist wars. There was not a moment to lose.

The Soviet Government was in possession of principles which enabled it to forecast distant events with a clearness and reliability unusual in statesmen in capitalist lands. In view of a situation upon which it could confidently calculate, and which was full of menace, it acted with a prudence which revealed itself to the casual onlooker only in external haste and reckless urgency. In face of repeated failures and inevitable blunders it began to build up an industrial machine second to none in the world.

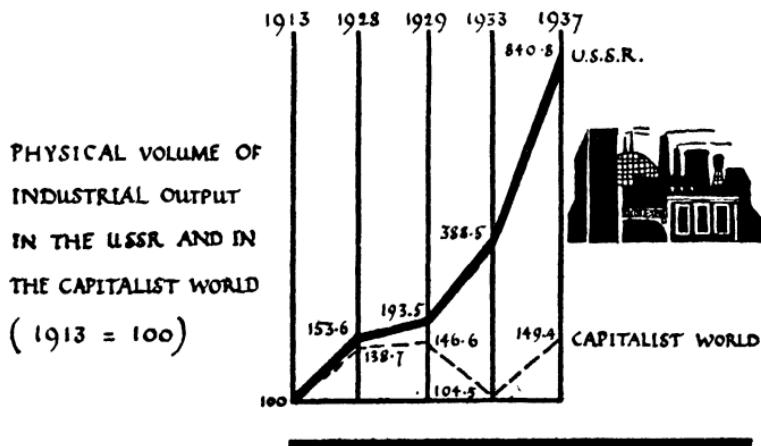
All this precipitate haste has been vindicated by events. Russia is now in sight of industrial parity with the foremost capitalist states of the world. Possessing its own heavy industry, its own armaments, and its own rising standard of life, it at last stands secure in a world of stress and storm.

Nor must it be forgotten that internal reasons combined with external in pressing for a speedy and complete turnover to a competent and thorough-going socialized industrial system. Petty private ownership of farmsteads was providing a dangerous basis for capitalistic factions in the State. A strong socialized industry alone could tilt the balance and, by producing a powerfully mechanized and large-scale agriculture, could make the socialist basis of the State secure.

Under the combined spur of these needs the Soviet Government flung itself with great haste into the task of reconstituting industry, and naturally committed blunders in the process. Despite all difficulties, however, and in the

brief period of twenty-one years, half of which at least were devoted to negative work, the Soviet Union has built up an industrial system which places it in the forefront of the world's producing countries.

The output of large scale industry, which in 1923 amounted to 4,000 million rubles, in the prices of 1926-1927, has risen more than twenty-five-fold, and still it grows. At present



more than 40,000 million rubles are invested annually in capital construction.

The total physical volume of industrial output in 1937 in the U.S.S.R. had risen to 840.8 if we take the output in 1913 to be represented by 100. The total physical volume of industrial output in the capitalist world at the same time had risen only to 149.4. The accompanying graph shows the colossal rise at a glance.

2. BURNING THE PAST

THE SOVIET UNION is extraordinarily rich in natural resources. No country in the world possesses more ample reserves of raw materials. With half its territory as yet uninvestigated, the Union occupies a foremost place in known reserves of coal, oil, peat, iron ore, potash, apatite, and manganese ore, as well as in forests and water power.

The American economist, Emery Brux, enumerating twenty-two strategic raw materials essential for successful war in case of blockade, observes that Great Britain, apart from her colonies, lacks nineteen, Germany eighteen, and the U.S.A. nine. The Soviet Union lacks only four—tungsten, tin, antimony, and nickel—and already, and in recent years and months, it makes good this deficiency from within its own borders.

The land of the Tsars, rich in resources, was poor in knowledge of its wealth. It was left for Soviet geologists to discover the hidden riches, not only in the lands still unexplored, but even in centres of population long since examined. Tsarist industry ignored what lay beneath its very feet. The geological map needed a total reconstruction.

And now, the reconstruction takes place, with a rapidity unknown elsewhere. The U.S.S.R. is developing all its resources to the uttermost, and primarily its power resources of coal, oil, and water power.

Take coal first. The forests of the past. The fuel from the past. The bottled sunshine of a million years. It is impossible to exaggerate the importance of coal. Modern industrialism is built up on a basis of coal. England's industrial supremacy begins with the story of coal.

At first it was surface coal, scraped from the outcrops and used for warmth. Then, as the demand grew, mines were dug. Difficulties, when they arose, served as stepping-stones to new advances. The flooding of mines demanded pumps. New inventions harnessed steam to rid the mines

of water: the stationary steam-engine had arrived. Coal needs hauling. Why not harness steam to haul, as well as pump? The iron road and steam locomotive had arrived.

Before long steam-engines were pumping water, winding and hauling coal, carrying passengers, driving cotton-looms, and serving man in a thousand other ways. And coal supplied the steam. England had coal. England exploited her coal supplies. The gaunt winding-head and slag-heap became as familiar sights in the English landscape as the haystack and barn, and industrial England clustered around them. Manchester, Birmingham, Sheffield, and Leeds sprang into being. The country grew rich and prosperous, though ugly through a get-rich-quick disregard of national amenities.

Coal is still in demand. Coal supplies heat, light, and power; coal-tar waterproofs our roads; coal products provide butter substitutes for food, dyes for frocks and fabrics, aspirin for nerves. Coal reigns, and though not unchallenged, is as vital as ever to industrial efficiency.

Tsarist Russia had coal. More coal than England. More coal than all the rest of Europe put together. Tsarist Russia never dreamt of the wealth of her supplies. Only with the advent of the Soviet Government was the magnitude of Russia's coal reserves discovered and applied to Russia's needs.

Tsarist Russia as a whole produced 29·1 million tons of coal annually. The Soviet Union had increased this, in 1938, to 137 million tons.

The coal-map of the Soviet Union contrasts vividly with the coal-map of the Tsarist regime, in which the Don Basin in Southern European Russia stood unchallenged and dangerously exposed to enemy attack: England at the Crimea stood on the highway to the Don. The rest of the map was largely blank.

Now, however, winding-heads arise in unheard-of places. The geologist went first; mapped the strata, drove the stakes, and said, "Dig here". Railroads appeared, shafts were sunk, winding-heads erected, cottages built, families reared. Farms expanded to supply butter, eggs, meat,

and fruit. The miller came. The baker came. The carpenter came, the tailor, the shoe-maker, the school, the printing-press, the cinema.

That happens when Soviet mines are sunk. That always happens. That was meant to happen. It was meant that the population should spread out and increase. The waste places were destined to blossom as the rose so that the peoples in remote regions might grow through exploitation, not of fellow-men, but of their own regional riches.

The geologist and his stakes were followed up as he drove them right across the continent. Some big stakes were driven in Western and Eastern Siberia, situated in the very heart of the Union, half-way between the world's two greatest oceans and in places seldom heard of formerly.

Who knew of Kuznetz, at the foot of the Altai Mountains which divide the Soviet union from extreme Western China and Mongolia? No one, perhaps, save the engineers who tapped Kuznetz coal for the Trans-Siberian locomotives. Yet Kuznetz coal reserves are estimated at 450,000 million tons, 54,000 millions of it of first-rate quality. Were coal used at its present rate, the Kuznetz basin could supply the whole world with coal for the next 300 years.

Nor is that the end of the story. Perhaps it is but the beginning. For if you travel due north from Kuznetz, still in that central axis between the Atlantic and Pacific Oceans, and follow the banks of the vast River Yenesei, which runs through Eastern Siberia to empty itself into the Arctic Ocean, you will traverse another coal-field with a promise rivalling even the Kuznetz area.

Huge outcrops of coal have also been discovered at Arctic Pechora in the icy north and at Karaganda on the sultry steppes of Kazakstan.

The Donetz Basin, again, with an abundance of coal, lies near the western borders of the Union. What of the eastern borders? What of the frontiers which infringe upon Japan? Should war break out between that country and the Soviet Union, must the Soviets transport all war material across a vast continent by means of a single railway system or depend on vulnerable ocean routes? And Japan speaks as threateningly in the east as Germany in the west.

The east, then, has demanded its own industry for defence and for the building up of socialism, and if industry must come, coal must be found. So Soviet geologists again map the strata and drive the stakes; this time along the Amur River, which flows into the ocean north of Japan. Here is found a coal-basin in the east as rich as the Donetz basin in the west, and with resources estimated at 100,000 million tons.

Yet another field clamours for mention. Herr Hitler has viewed it with covetous eyes, and said so before the Soviet Union grew too strong to make him look that way so eagerly as formerly. It lies in the Ural Mountains, which cut the Soviet Union into eastern and western halves, and it is situated in a region where iron ore also exists in abundance. The combination of these minerals gives peculiar importance to the Ural coal-field. For iron ore is useless without coal. Imported coal costs 40 rubles a ton: local coal only 22-27 rubles, and thus is helping to bring into existence one of the largest iron-producing centres of the world. By 1942 thirty-five new mines are to be opened in the Urals and the planned output will increase to two and a half times its present figure.

Science has done many things for coal. Geological science discovers coal. Engineering science excavates coal, drills it, saws it, lifts it on to travelling-belts and transports it. Chemical science takes coal and distils tars, scents, colours, foodstuffs, and drugs from it. Science reduces working hours at the coal-face. Science frees men from peculiarly perilous jobs which thrust them into the bowels of the earth, cramp them, double them up and remove them from the light of day.

And when science, in the Soviet Union, sets men free from one job, it provides them with other work; it does not, as we have seen, throw them on the scrap-heap.

Science is never still. It moves to fresh achievement. Science, in the Soviet Union, has an eye to health and beauty as well as material production. It aids the artist and the doctor. Science, as we have seen, gasifies coal in the seam and, with a minimum of human aid, delivers light, heat, and power direct to the users, preventing the consump-

tion of raw coal in open fires, with fouling of air, rotting of buildings, and interception of ultra-violet rays. Raw coal-fires are responsible for rickets and consumption and many other diseases. They draw a trail of ugliness across industrial areas. Lenin had perceived this and fought for the removal of industrial ugliness when he advocated the gasification rather than the haulage of coal. Clean skies and homes lie ahead for Soviet workers.

3. BLACK GOLD

FUEL OIL is as essential to the modern State as fuel coal. Oil is to the twentieth century what coal was to the nineteenth. Coal reigns on, and with extended uses; but oil reigns beside it, and oil, the Black Gold of Russia, threatens to become the senior partner. Oil drives motor-cars, aeroplanes, and ocean liners.

Above all, the national defence force needs oil. A mechanized army is helpless apart from oil. Little wonder that oil attracts covetous eyes. The political world manœuvres to gain control of oil-bearing regions. Oil is crucial in the Palestinian question. We hear much about Arabs and Jews, and little about oil. But it is oil that keeps us in Palestine. The oil line from Iraq is the key to the problem of Palestine.

Oil drives Germany towards Rumania as surely as oil keeps us in Palestine, and we all get stirred about the oil of Mexico. It is impossible to follow with appropriate intelligence the play and by-play of modern national movements apart from the study of oil and oil supply.

The Soviet Union needs oil no less than other lands. More so indeed, for its mechanized forces are the vastest in the world, and its chance, in case of war, of getting oil from any capitalist country is infinitesimal. Lack of oil might prove fatal. But there is no lack of oil. The U.S.S.R. possesses oil reserves unsurpassed by any country in the world. It occupies second place in actual world-output, and leads in the matter of electrification of oil-producing plant.

In Tsarist Russia the oil industry was limited to one small area, the Caucasus. On the south side of the Caucasian range was Baku, the largest centre, which yielded 83 per cent. of Russian oil. Grosny, on the northern slopes, yielded 13 per cent. more. The output from the rest of Russia, from Emba on the north-east coast of the Caspian, from the Ferghan valley in Central Asia, and from the island of Sakhalin, which Russia shares with Japan, was insignificant.

Soviet geologists have now discovered almost limitless reserves of oil, and more crucial still is the discovery of its wide extension. A belt of oil-bearing strata runs north from Baku, following roughly the track of the Ural Mountains, which cut the continent in two from north to south.

In the far north, on the River Ukhta in the Pechora Basin of the Arctic Ocean, rise among the pine-woods of a roadless, uninhabited land the familiar derricks surrounded by workers' settlements, with electric power-plant and wireless station. Southwards along the Urals is a link of stations: Chousser, Sterlitamak in Bashkiria, Emba on the north coast of the Caspian, and then the southernmost wells in Turkmenia. Baku has lost her supremacy.

Sterlitamak, one link in this north-south chain, and lying in the Urals nearly on the same level as Moscow, and some 600 miles eastwards, has exceptional interest, for it supplies the needs of the growing Ural industries built up upon the rich Ural mineral supplies and far removed from the attack of German planes. Both banks of the White River, which runs from the Urals to the Volga, are dotted with oil-derricks.

This discovery of oil right in the centre of the Soviet Union, at Sterlitamak, Krasnakamsk, down the White River, down the River Kama, and by the delta where it flows into the Volga, is of immense importance. It not only supplies the needs of the Urals, but it is conveniently placed for road or river transit wherever need may indicate, and builds up, with oil, coal, and other mineral resources, a powerful and invulnerable industry in the very heart of the Union. The Urals are speedily becoming the world's strongest citadel.

At the International Geological Congress held in Moscow in July 1937, Professor Gubkin estimated the oil resources of the U.S.S.R. at 6,376.3 million tons. Six months later this estimate was found to err on the side of excessive caution. No limit can be set until the whole vast area has been explored. The output of oil, which had dropped from 9.2 million tons in 1913 to 3,893,000 tons in 1920, mounted up to 30.6 million tons in 1937, and the rate of increase grows.

4. HARNESSING THE RIVERS

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ELECTRICITY is the handmaid of the home. It lifts the housewife's burden. It simplifies domestic life. We switch on the light. Candles, matches, and lamps disappear. We switch on the heat. Coal and chips and dust disappear. We switch on the kettle, the oven, the griller. The sooted flue disappears. Electric irons smooth our clothes. Electric sweepers save the housemaid's knees and the clouds of dust. Electric clocks need no winding and cause us to miss no trains.

Electricity is the handmaid of industry. The modern factory goes wandering away from crowded centres into rural areas. Factories leave pithead and railhead. Trunk roads and motor-lorries solve transit problems. The pylon solves the light, heat, and power problems. And, if we will have it so, an industrial colony may be as comely as an Oxford college.

Electricity places wholly new powers in the hands of man.

Far back in the last century, Karl Marx and Engels grasped, with prophetic vision, the significance for a socialist regime of the new discoveries of electricity, then in its infancy. They perceived, almost before the scientists themselves perceived it, that power as well as light would, in time, travel along slender cables to revolutionize our industry.

On November 8th, 1882, Karl Marx wrote to Frederick Engels:—

“ Dear Fred, what do you think of Deprez' experiment at the Munich Electricity Exhibition? It is nearly a year since Longuet promised to get me Deprez' works (especially to prove that electricity permits of the transmission of power over long distances by means of ordinary telegraph wire. . . .)”

On November 11th, 1882, Engels replied:—

“ Dear Moor. . . . I am very curious as to the details of the experiment made by Deprez in Munich; it is absolutely unclear to me how the hitherto valid laws for the calculation of the resistance of conductors, also used by engineers practically (in their calculations) can remain. It has hitherto been considered that resistance increases, for conductors of the same material, proportionately as the diameter of the conducting wire decreases. I wish the things could be got from Longuet. The discovery makes it possible to utilize the vast water power which hitherto went wasted.”

The picture lies before me of Deprez’ exhibit at the Munich Exhibition of 1882. A hydraulic motor and generator at Miesbach set pumps at work in Munich 60 kilometres away, through the agency of two slender telegraph wires.

The founders of scientific socialism not only recognized a wonderful scientific discovery, but foretold the economic and political consequences which were bound to result from it. At its very dawn Marx laid claim to electricity as the basis of socialist technique.

Lenin followed Marx’s example in his enthusiasm for electricity and in his recognition of its supreme importance in socialized industry. In the early and perilous days of the Revolution he formulated his views with singular precision. One of the most important tasks facing the national economy, he declared, was “ to devote special attention to the electrification of industry and transport and to the application of electricity in agriculture ”.

Lenin had fallow land to work upon. Tsarist Russia persistently neglected electric power. Steam turned her machines, steam pulled her trains, gas and kerosene lit her streets, factories, and houses. Electric power-stations, save in the larger towns of Moscow and St. Petersburg, were few in number and limited in capacity.

For all its vast size, Russia occupied only the fifteenth place in world output of electric energy, and in producing that fragment was wildly reckless with her resources and

uninstructed in her methods. Drawing to Moscow, and at great transportation costs, high calorific petroleum from the Caucasus, and high-grade coal from the Donbas basin, she totally neglected the water-power of some of the world's mightiest rivers.

A country so closely knit as that possessed of a socialist economy must necessarily require motive power which can be transmitted over long distances, which is universal and adequate in its application, and economical in its cost. Electricity fills all requirements. Electricity is the indispensable foundation for the large-scale production which a socialist State demands.

Lenin formulated a plan for electrification which was designed to cover the whole country with a network of district power-stations and transmission lines. The plan was adopted in 1920, and ten to fifteen years were allotted for its fulfilment.

In the same year, 1920, it happened that Mr. H. G. Wells visited Moscow. He had chosen a sorry but instructive time for the visit. For not even the imagination of England's arch-dreamer could penetrate the outer gloom and turmoil of a young State in the early throes of a socialist revolution and see with any clearness whither it tended. From his railway-carriage window Wells looks out upon a country-side of wretched hovels, where famished and illiterate peasants have destroyed the trading settlements. In the town the workmen, led—as might be said—by fanatics, were trying to apply the maxims of Marx to a people still in the stage of the wooden plough. Wells sees complete collapse of civil government. Chaos is triumphant. In his note-book he writes:

“ In 1920 Russia presented the unprecedented picture of modern civilization in a state of complete collapse. The railways were rusting and falling by degrees into disuse; the towns were falling into ruins.”

In the Kremlin he met Lenin, and makes this further entry in his note-book:

“ Lenin, who like a good orthodox Marxist denounces

all Utopians, has succumbed at last to a Utopia, the Utopia of the electricians. He is throwing all his weight into a scheme for the development of great power stations in Russia to serve whole provinces with light, with transport, and with power. Two experimental districts, he said, had already been electrified. Can one imagine a more courageous project in a vast flat land of forests and illiterate peasants, with no water power, with no technical skill available, and with trade and industry at the last gasp? Projects for such electrification are in process of development in Holland and they have been discussed in England, and in those densely-populated and highly-developed centres one can imagine them as successful, economical, and altogether beneficial. But their application in Russia is an altogether greater strain upon the constructive imagination. I cannot see anything of the sort happening in this dark crystal of Russia, but this little man at the Kremlin can. . . .”

And the little man was right. And Wells was wrong. Lenin knew what were the issues at stake.

“Without a plan of electrification we cannot tackle the work of actual construction. We need this programme as the first rough draft, to be placed before the whole of Russia, of an economic plan, calculated ahead for at least ten years and showing the way now to give Russia in actual fact the economic basis that is required by Communism. . . . Communism is Soviet government plus the electrification of the whole country. Otherwise the country will remain a country of small peasant economy, and it is up to us to realize this quite clearly.”

Whilst these words were being spoken at the Eighth All-Russia Congress, bullets were still singing over the banks of the Dnieper; the Kichkas bridge was blown into fragments, and a German army of occupation had entered Kiev.

At this very moment, and as if heedless of their peril, the engineer, Krzhizhanovsky, mounted the rostrum of the Great Theatre in Moscow and announced the most fantastic plans.

Twenty electric stations worked by steam with a capacity of over 1 million kilowatts; ten water-power stations, with a capacity of over 640,000 kilowatts, were to be erected in a country where even oil-lighting was still a rarity.

This man was gravely proposing a plan for covering with a network of cables a primitive land in the early childhood of its industrialism, with no material resources, and in the throes of civil war. Ironic foreign journalists dubbed his speech as "electrofiction".

Stalin, in March 1921, wrote to Lenin as follows concerning the electricity plan:

"I move:

1. That not a single minute more be wasted on talking about the plan.
2. That a practical start be made.
3. That at least one third . . . of all we do be subordinated to the interests of this start."

A start was made on the Dnieper. Soviet theodolites replaced German guns. The Plan began. The possibilities grew as it proceeded. The original horse-power anticipated was 350,000. Subsequently 810,000 was found possible.

Rocks were blasted; rails cut through the hills; a steel army of cranes, excavators, locomotives and drills attacked, conquered, and harnessed this mass of water moving at a speed of 3,000 cubic metres a second. Peasants, young and old, threw themselves behind the task. Rocks were blasted. Vast holes excavated. Concrete poured down in streams. Mr. Thomson, the American specialist, reports:

"I have seen concrete laid in different parts of the world and it is not the first time I have had to see an avalanche of concrete, but what is significant is that the avalanche continues to descend with the same force and all to a man are inspired with energy and drawn into the impetuous advance."

Dnieprostroy created a new world record in speed of concrete laying.

By 5.20 p.m. on March 28th, 1932, the last bucket of concrete had been sunk and the dam was completed before scheduled time. Rocks, rapids, banks were slowly submerged. Ninety-five kilometres of turbulent rapids became a navigable stream. The river was vanquished and the waters rose to the height of a six-storied building and spread out as a vast lake, smooth and far. Great steamers, lifted through giant locks, travelled from the sea through deep and quiet waters to the upper river and far out into the heart of the Steppes.

The turmoil is now hidden out of sight. The water from the deep and peaceful basin is sucked into the pipes of nine turbines which lie like monstrous fossil snails buried in the concrete. Masses of water rush through a circular corridor seven yards in diameter and drive against the vanes of the turbine to generate a power nearly double that of the plant at the Niagara Falls. A miraculous thing has happened. The turbulence of the cataracts passes invisibly and silently through wires overhead to lift burdens from human shoulders and meet a thousand human needs.

When he bade good-bye to Wells, Lenin had said: "Come again to Russia in ten years' time and see what we shall have done in the meantime." That was in 1920. In 1932 the largest electric giant in Europe had been erected in the land of the "moujiks" and "economic chaos".

Fifteen years later the plan was already fulfilled by 150 per cent. Pylons and cables become familiar features of Soviet landscapes. Travel to the far north and you will find a hydro-electric station in the Kola peninsula where the thermometer falls 40 degrees below zero and the frozen ground blunts the finest steel. Another station plants itself still farther north on the shores of the Arctic sea.

Travel again to the extreme south, to the sultry steppes of Kazakstan or to the lonely hills and valleys of Tadzhikistan, where floating wicks in bowls of oil served primitive hovels for light and where work ceased at sunset. Now electric lamps sparkle and glow in cottages and hamlets and village streets. Electricity skips the stage of the kerosene lamp, and in amply lighted rooms children study books and families enjoy the amenities of civilized life.

(ii)

Electricity has its romance and gives rein to the engineer's imagination. In Armenia, the land of ancient culture and modern torture, where Ararat raises its summit to the skies, and where foaming streams roar down the mountain chasms, lies, high above the valleys, the great lake of Sevan. It stands two kilometres above sea level, and its deep waters, stretching out over an area of 1,500 square kilometres, are fed by twenty-seven small rivers. In the hot and sultry air millions of gallons of water evaporate and are lost. Millions more run down the Zanga River unutilized, whilst possible copper-works, rubber-works, cotton-mills, silk-mills, quarries only await the power to drive them, and fields capable of rich crops only await water for their irrigation.

Lenin, in a letter to the Communists of Transcaucasia, in April 1921, pointed out that it was necessary "to begin large works for electrification and irrigation". By 1936 the power-stations of Armenia were producing 141 million kilowatt-hours of energy a year. Lake Sevan had been harnessed; and harnessed in a way so skilful and imaginative that as industries grow the power to drive them will grow proportionately. The water, in its fall of 1,000 metres, is intercepted stage by stage and forced to turn the turbines which supply the needed power. The waste waters spread out through a network of irrigation canals amongst vine-yards, orchards, and cotton-fields.

The future need of expanding industries is met by a cunning calculation. A tunnel penetrates the mountain, and with the River Zanga helps to draw and utilize larger quantities of water from the lake, whose level lowers year by year. In fifty years time the level of the lake will have fallen 50 metres. And yet the available power will increase. For evaporation will decrease. A larger percentage of the water of the twenty-seven tributary rivers will be available for use.

No tales of persecution and poverty come now from the land "of the Armenian atrocities". The era to which William Ewart Gladstone looked forward has arrived

miraculously. Armenia is free and advances. Armenia grows her own cotton, works it in her own textile mills, driven with her own power; produces 15 million cans of fruit a year from her own orchards, and electrically operates cheese production in her own alpine factories.

When E. Abramyan wrote: "I lost my parents during the imperialist war and was left an uncared-for orphan. There were over 50,000 such waifs in Armenia before the Soviet power was established. The Soviet power became a mother to us, sheltered us from our earliest years, cared for us and gave us an education," she told the story of the new life in Armenia to which their own Lake Sevan is made to minister.

(iii)

But it is mainly on her rivers that the Soviet Union must depend for the power her industries demand. Russia's rivers, amongst the largest in the world, drove, in Tsarist days, the grindstones of a village mill. Today they drive vast power-plants. The combined capacity of all the Tsarist hydro-electric stations was less than one-sixth of the capacity of a single turbine in the Dnieper station.

The contemplated river projects are simply gigantic, far surpassing any schemes attempted or dreamed of in other lands.

The Volga project fills the public eye at the moment. The largest river in Europe is to be, in its entirety, harnessed and tamed. Huge dams will block the Volga and its tributaries, deepening the channels and driving eight hydro-electric stations on the Volga River, six on the Kama, the tributary river which drains the western Urals and enters the Volga at Kazan, three on the Oka River, and three more on the canal which is to join the Volga with the Don and enable ships from Moscow to pass through the Black Sea to the Atlantic Ocean.

Two stations, at Uglich and Rybinsk, northwards of Moscow, are now near completion, and the Ivankovo station is already complete. Construction on the Kuibyshев station, destined to be the largest in the world, has started and proceeds.

When the whole scheme is completed, floods and droughts will be conquered; virgin and desert lands will burst with fertile crops; ocean steamers will rise from level to level through gigantic concrete locks and pass amongst new cotton-fields along a mighty inland waterway, linked up with rail, sea, and river transport lines.

Still more grandiose schemes propose to utilize the rivers and lakes of Eastern Siberia, where the Angara, the Yenisei, and other huge rivers flow from high altitudes down rocky beds. Engineers talk now in terms of 100,000 million kilowatt-hours as available.

Socialist organization has had great advantages in electrification. It chooses the best sites. It fears no property rights. It concentrates capital investments on gigantic power-stations, with all the economies that this implies. It creates great linked-up systems: the Moscow system, for instance, even now, and taken by itself, apart from all the other systems, with which it will one day be linked, holds first place in Europe for power generated, and shares with New York the first place in the world for heat and power production.

5. STEEL FOUNDATIONS

CIVILIZED LIVING makes big demands on metals. A well-fitted house claims large quantities of iron, steel, copper, and a long list of other metals. There are the iron ranges or gas-cookers in kitchens, and fire-bars in parlours. There are iron shovels, buckets, saucepans, vacuum cleaners, pianos, and sewing-machines. Indirectly the demand is greater: the clothes we wear are woven on steel looms driven by steel engines and transported by steel locomotives travelling on steel rails. Add all the homes together and you get the measure of demand for metals.

The amount of metal a country produces is a good gauge to its civilized usages. If Tsarist Russia consumed a minute quantity of steel, and produced still less, we can safely conclude that the homes of her 160 million subjects were less civilized, as was indeed the fact.

Considering the immense size of its territory, the iron and steel industry of Tsarist Russia was absurdly small. How small in relation to today's production may be seen by the fact that all but 3½ per cent. of Soviet iron and steel comes from new or completely reconstructed mills.

Furthermore, the industry was concentrated in one or two localities instead of spreading out widely and healthily. Russia depended mainly on the blast-furnaces of the south. The Donbas and Dnieper districts provided nearly three-quarters of Russia's pig iron. What if the Donbas had been seized by Britain or Germany?

The other centre in the Ural Mountains which accounted for the remaining quarter of Russian pig iron had in ancient days supplied the greater part of Europe with metals: its iron industry still persisted, but with the technique of the eighteenth century. The atmosphere was feudal. The forges were toys. The capitalist Donbas industry had left the feudal Urals high and dry. And yet even the capitalist Tsarist Donbas lingered so far behind Soviet achievement that three of the largest works

of today produce more pig-iron than all the eighty-seven furnaces of Tsarist Russia.

This dangerous concentration of industry was in no sense due to lack of raw material in other localities.

Soviet geologists have quickly discovered and mapped fresh sources of supplies, and prepared the way for the thrilling story of re-mapping industry and population.

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In *The Times* Atlas, in obscure print, you may find the place-name Magnitnaya (Magnet Mountain), lying 617 metres above sea level and in the extreme south of the Ural Mountains. On the right bank of the small river which skirted the mountain lay the Cossack village of Magnitnaya.

In 1929, wind-swept, flowery meadows lay beyond the village. Herds of cattle browsed up the slope of the Atach Mountain. Today one of the world's supreme steel centres hums and roars where the cattle grazed. The Atach Mountain was one vast lump of iron ore, containing 63 per cent. of iron, and weighing 300 million tons. The Magnet Mountain gives it its appropriate name of Magnitogorsk.

An area of 54 square kilometres was selected for the site of Magnitogorsk. Five square kilometres were for the metallurgical plant.

Workers of thirty-five nationalities assembled and built barracks for workers, a settlement for foreign specialists, co-operative stores, restaurants, hospitals, nurseries, clubs, and a theatre. A ferro-concrete dam was thrown across the little river, and a lake of 13½ square kilometres was formed. The work was done in winter with slightly heated concrete, the first experiment of its kind in the world.

Aerodromes were built, railways cut, roads laid: tractors, trucks, automobiles jostled with caravans of horses and camels on the new highways. Centuries were telescoped into months.

Sixty thousand workers settled, built two electric stations,

a brick-yard, a saw-mill, a wood-factory, a forge and a machine-shop. The attack upon the mountain began. Ledges 30 feet high were cut in it to get the ore.

Enormous structures arose: the housing of huge ore-crushers; vast walls of the power-plant; batteries of coke-ovens and blast-furnaces towering to the height of 130 feet.

The blast-furnaces of Magnitogorsk form the most powerful battery in the world. The open-hearth furnaces are the largest in the world.

Chemical works spring up to utilize the chemical by-products of the coke-ovens: benzol, ammonia, coal-tar, and fertilizers.

The city itself is planned with care: Soviet factories turn out men as well as steel: seventeen great blocks of buildings, each with its own department store, school, restaurants, and crèches; each apartment in the blocks of flats with its own bath, running water, electric light, gas, and central heating.

By 1934 the mills turned out about 10 million tons of cast iron. By 1937 this had grown to $14\frac{1}{2}$ million tons. Steel increased from $9\frac{1}{2}$ to upwards of $17\frac{1}{2}$ million tons, and rolled metal from 9 to 13 million tons.

(ii)

And now for another large-scale, large-visioned undertaking.

Like two great bastions of industrial power in the central areas of the Soviet Union stand the iron-ore mines of these Ural Mountains and the coal regions of Kuznetz, lying far to the east. Two thousand kilometres separate them. Yet their interests are mutual. The Magnet Mountain provides the best ore, Kuznetz the best coking coal. So Kuznetz coal travels to Magnitogorsk, and Magnitogorsk ore to Kuznetz, with blast-furnaces at either end. The trucks are always full, and each works supplies the other's need.

The united output is enormous. Even in 1936 the two mills together produced one and a half times as much pig

iron as Japan, and each becomes the centre of a virile population.

A new industrial world has been born in the central regions around coal and iron ore. The old world of the Donbas has been reborn. New blast- and open-hearth furnaces replace the outdated, outworn furnaces of Tsarist days. The iron ore at Krivoi Rog in the Ukraine and the coal in the Donbas station are linked together as were Magnitogorsk and Kuznetz, with a smelting-works at each end; the trucks travelling between the two always working to capacity.

And yet another new world is planned, with a further redistribution of industry. An iron and steel base is to be established in the Far East, with a complete metallurgical cycle of production, which will meet all the needs of a local machine-building industry. The eastern districts are to yield from 28 to 35 per cent. of the country's total production.

By 1942 the output of pig iron is to be half as much again as that of 1937; steel 56 per cent. more; rolled metal 62 per cent. more, and of high-grade rolled metal nearly twice as much.

Form a picture of what this means. Steel, for example, is to increase by 56 per cent. Each 1 per cent. of increase in rolled steel would produce heavy rails for nearly 500 miles of railroad. The *increase* of rolled steel of 1942 over 1937 would provide steel rails that would more than circle the globe at the Equator.

I have spoken only of iron and steel. Of other metals the same holds good. The Pribalkhashsky combine is planned to turn the copper resources of Kazakstan, which spread far and wide over the southern central regions of the U.S.S.R., into one of the largest copper industries in the world, whilst aluminium works are erected on the Dnieper, near Leningrad, in the Urals, and in far northern Karelia.

(iii)

Let the closing word be of gold. Gold still has value other than intrinsic for the Soviet Union, for gold is a

means of exchange with other countries who value it. So gold is useful, and the U.S.S.R. abounds in gold.

Gold, in the capitalist world, has a sinister history. Sinister in the getting. Sinister in subsequent manipulation. When the gold city of Johannesburg was established, the natives refused to work underground until the hut-tax and other payments which could only be made in money compelled them to do so. Mr. John Hodgson, the distinguished engineer, in an article in the *New Statesman* in 1916, showed that for every 60-lb. bar of gold produced from the death-dealing quartz dust at Johannesburg one native died and five others were ruined for life by accident or disease. Mr. Hodgson's article caused the Minister of Mines to take action and saved the lives of 300,000 natives.

Higher wages were paid to entice the natives to stay longer. But higher wages worked differently with natives than with white men; they the quicker bought their liberty. So betting was introduced and debts were incurred, and a docile and permanent labour force became available.

Mr. Hodgson has much to say of the gold mines of Tsarist Russia, where, on April 17th, 1912, a peaceful and unarmed procession of strikers at the Lena gold-fields—then being exploited by an English company formed in 1908—was scattered by soldiers' bullets. One hundred and nineteen persons were killed. The general cause of the strike was long hours with low and delayed pay. The immediate cause was the serving out of a horse's sexual organs in the food. The further general strike which the Lena massacre involved caused a government inquiry which elicited these horrible facts.

If the production of gold has slain its thousands, the manipulation of gold has slain its tens of thousands, or, to be more correct, its tens of millions. Those who hold the gold, and on the basis of that holding erect a pyramid of interest-bearing obligations, and then a mountain of inextinguishable debt; those who create or destroy the money of the people by a stroke of the pen, hold the livelihood of the peoples and the life of industry in the hollow of their hand.

In vivid contrast is the production of gold and its use in the Soviet Union.

Gold is mined all over the Soviet Union. Old flooded mines are restored and new deposits discovered. In the remote taiga of the north, in the steppes of Kazakstan, in the mountain regions of the Pamirs, in the valleys of the northern Caucasus, and in the foothills of the Urals or the Altai Mountains, gold is found, and the gold-bearing regions are as large as the combined areas of several European countries. In output the Soviet Union occupies second place in world production.

Gold prospecting in the U.S.S.R. employs new methods and new equipment. Search-parties, armed with Empire drills, Krelins drills, Keystone drills, or Sullivan drills, invade the remotest parts of the Soviet Union all the year round, and send the samples of ore they find for precise analysis with sensitive instruments by qualified scientists at the gold research institutes. Eighty per cent. instead of 5 per cent. of production is now extracted mechanically, one method being the hydraulic gun, by which earth is removed by a jet of water under terrific pressure.

When a new field is discovered, roads, railways, and air routes replace the camels and the reindeer and the primitive track, and link up the field with the central world of the Union. Electrically driven and steam-driven machinery, often of immense size, aid the workers, who are organized on socialist principles. The experience of the old diggers aids the younger men, and the conditions in which both live differ totally from the conditions in the Lena gold-fields. The old dug-outs and wooden huts are replaced by decent houses. Well-equipped shops and restaurants have been opened, schools built and newspapers published. One hundred and seven thousand pupils attend 576 schools in the gold-fields of the Soviet Union. The life of the child of the gold-digger is a primary care.

Better even than the methods of gold extraction is the Soviet method of employing gold when mined.

It might at first sight seem odd that the Soviet Government should seek so eagerly to dig out of the ground the shiny yellow metal which has been used so long to enslave

mankind. But we must remember that the Soviet Union is still surrounded by a capitalist world, and gold has value in that world in the struggle for economic independence. Gold procures the most modern machinery, equipment, and technical innovations. Gold means the strengthening of the defensive powers of the country. Gold is useful abroad.

But gold is used as money only for foreign purchases. Gold is not the basis of currency within the Union. The Soviet Union enjoys a managed currency, without any reference to foreign exchanges. The fluctuations in the aggregate amount of Soviet currency have no observable effect on prices of commodities or services: prices of commodities are fixed, just as gas or urban water is fixed in England, and cannot vary with the amount of currency in circulation. The amount of currency in circulation no more effects the price of goods than the number of postage stamps in existence effects the postage rates, or the number of letters dispatched.

Gold is useful to the U.S.S.R. so long as other lands employ it. Its internal use is confined to the filling of teeth, the construction of trinkets or for the technical purposes of industry.

Soviet Russia parts with its gold; it does not hoard it. In return it gets machinery and a thousand other valuable and useful articles. The gold it gives in exchange lies buried in the vaults of other lands. Its use as money is threatened. The day may be approaching when gold becomes worthless in all countries save for technical purposes. "We may yet live to see the day when gold falls to a tenth of its present value; the gold mines will be ruined—but we may have gold plates on our table!" Soviet Russia will in that case have the better part of the bargain and deserves it.

And in the present, with a reserve of gold probably greater than that of its three potential Fascist enemies combined, the Soviet Union has wisely placed itself in a strong position in the event of war.

6. OUR SERVANTS THE MACHINES

THIS IS a machine age. We become a machine-minded people. The housewife owns machines, and works machines: sewing-machines, vacuum cleaners, refrigerators, wireless, gramophones, bicycles, and motor-cars. Machines add power to our hands and speed to our feet; machines lift burdens off our shoulders; free us from a thousand tasks. Machines, driven by solar power in any of its various forms, make poverty an anachronism. We starve amidst plenty, if we starve at all.

England suffers from no lack of machines, only from lack of common sense in their use. We are not mechanically backward, but economically backward. We have stuck fast at the economically stupid stage, where machines stand idle whilst we go hungry.

In England the machine is regarded by many as an enemy, and with some show of reason. New machines and new inventions throw thousands on the dole. In a glass factory one person makes 3,000 bottles an hour: formerly it took seventy-seven. The machine deprives seventy-six of employment. Men dread the advent of a new machine.

Tsarist Russia went back even a step behind that in fear, and dreaded the factory which made the machine. The Tsarist Government observed that machine factories in other lands had produced the revolutionary proletariat and the radical middle class. Consequently no encouragement was given to industrial development by Tsarist Russia: most machinery was imported. Even scythes, the universal agricultural implements of the pre-war age, were bought from Austria, though Russia possessed facilities for producing excellent steel.

The Soviet Union has no fear of the machine, and need have none. Naturally so. In a planned economy the more machines possessed the easier will be the work, the shorter the working day, the lighter and happier the lives of all. Possessing the power, the Soviet Union sought to

construct as many machines as were needed to produce what goods it desired.

When the Dnieper River was conquered, power was delivered at the cost of one kilowatt-hour for a farthing: one kilowatt being approximately three days' work of a strong man. That meant three days' work for a farthing.

The Soviet people are eager to make and possess machines which will utilize this cheap and abundant power and render it serviceable in an infinite variety of ways: machines that sew boots, machines that weave clothes, machines that churn butter, machines that make paper, machines that count; and those machines especially upon which all other machines depend, machines that make machines.

For the first essential obviously is the production of machines which make machines. If we have blacksmiths, locksmiths, and lathe-making shops; if we have drillers and grinders and polishers, and a few other skilled craftsmen, we can make any machine for any factory. Russia needed first of all machines to make machines, whether the machines were the sensitive ship's chronometer or the giant excavator which, like an immense arm, 60 feet in length, provided with a huge scoop at the end of it, cuts its way into the ground with immense teeth of forged steel, grips a wagon-load of earth, lifts it bodily, swings it easily round, and drops it with a rush like a waterfall into the iron box of the waiting truck.

Tsarist Russia lacked tools to make tools and men with technical skill to work them. Tsarist Russia depended on foreign technicians and bought all her complicated machinery from Britain, Germany, or the U.S.A.

Tools to make tools, machines to make machines, were the first problem. These tools to make tools are as wonderful in their own way as the tools they make; a hundred times more agile, a hundred times more accurate, and a hundred times more powerful than the hands of any man. Tools with steel hands that can saw, chop, hammer, and shave all at once. Cutting tools that travel so quickly that the tool gets red hot and demands—and gets—specially tempered steel. Tools that work with such precision that the steam hammer which at one moment could crush a

house will in the next drop so lightly as to touch your watch-glass on the anvil without breaking it.

The Soviet Union needed lathes, steam hammers, forges, presses, guillotines, saws, a vast variety of precision tools.

The Soviet Union was bound, therefore, if it hoped to survive at all, to create a machine-building industry, and to distribute that industry far and wide throughout the Union. To do this it must produce and train its own expert technical staff. That in itself was a colossal task and possessed many ramifications. It demanded the provision of schools, colleges, and technical institutes, manned by skilled teachers. It demanded the switch over to machine-mindedness of a people unacquainted even with the most elementary forms of machine construction. It demanded the development of discipline and emulation, and many other qualities of character.

The Soviet Union has achieved its colossal task in the brief space of one and twenty years, and today there is scarcely a single needed machine which it cannot produce at home. New branches of machine construction open daily.

(i)

Earliest and most pressing of the mechanical needs of the Union was that of a mechanized agricultural industry, and it is in the production of agricultural machinery that achievement is greatest and most dramatic. This least-mechanized sixth of the earth has sprung at a bound, as it were, into the foremost rank of mechanized lands. Soviet Russia produces more agricultural machinery than any country in the world, not even excluding the United States of America. The land which yesterday bought her scythes in Austria, today makes more agricultural tractors and combine harvesters than any country in the world.

Italy possesses 18,000 tractors, Germany 30,000. The Soviet people possess 558,600 tractors, and they are home-built and made to meet all needs. The Chelyabinsk factory produces 40,000 machines a year.

In production of combine harvesters, the Soviet Union leads the world, both in quantity and quality. One after-

noon, in the Ukraine, I amused myself with inspecting dozens of discarded types, many of them of well-known and recent make, housed in a field called the "museum". The Soviet Union's home-made harvesters had put the world's best specimens on the retired list.

The Molotov Auto-plant in Gorky produces more trucks than the combined auto-plants of England. It is the largest in the world. The Soviet Union incidentally already possesses more trucks than Japan, Italy, and Poland taken together.

One thousand and eighty locomotives leave the Voroshilovgrad factory a year: by 1942 the total output of main-line locomotives will be 2,090 a year. By the same date 400,000 automobiles a year will leave the auto-plants; and 90,000 two-axled freight-cars the railway-wagon shops.

(ii)

Aeroplanes provided a test case for Soviet planning. No modern land dare ignore the aeroplane. Without aeroplanes an army is robbed of its eyes and a country of its vital nerves.

In a land so vast as the Soviet Union, with forests, steppes and ice-fields, with national republics and autonomous regions far removed from the centre of the Union, air communication is a matter of exceptional importance. Sakhalin island, cut off for several months by sea, and the Kara-Kum desert by sand, depend for news upon the aeroplane. Outlying areas need constant touch with the centre by up-to-date newspapers: engineers need up-to-date plans. The Soviet air service meets these needs and increases the sense of unity, so necessary amongst widely scattered peoples.

Pilot Chukhnovsky discovered and rescued the crew of the Italian dirigible "Italia".

In an obscure corner of Karelia, where the thermometer drops 40 degrees below zero, the feet of a village teacher froze and gangrene set in. Death could only be avoided by an operation. No surgeon was accessible. But an aero-

plane, sent from Leningrad, brought her to a surgeon in a day and saved her life.

A dangerous epidemic threatened a herd of deer at the mouth of the Yenesei, months away from civilized life by ordinary modes of travel. A brigade of aviators transported doctors with curatives and the epidemic was stayed.

Aeroplanes carry mails; aeroplanes discover seals in Arctic waters; aeroplanes collect pelts from inaccessible parts of Yakutsk; aeroplanes sow rice, detect forest fires, exterminate noxious insects, wage war on locusts, kill weeds, plant trees, disperse fogs.

The Soviet Union now makes its own aeroplanes; and makes them of excellent quality and in astonishing quantities. The polar flight in 1937 of 7,000 miles in two days and a quarter, from Moscow to the southern regions of the United States, speaks of quality. Let Commandant Schmettel, of the German Reich Ministry of Air, an authority unlikely to exaggerate, speak of the quantity.

In his "Air War Threatened Europe", published in 1938, Commandant Schmettel states that the output of military planes by the Soviet Russian Aviation industry will reach the total figure of 12,000 or even 15,000 in 1940, and soon be able to produce from 12,000 to 15,000 planes a year. Its output in war-time, he adds, cannot be expressed in figures.

"Soviet planes, both in construction and performance, are up to American standards", says Thomas Morgan, president of the Curtiss-Wright Corporation. "The institutions and shops for research and study are equal in quality and far surpass in size anything abroad . . . because they have the whole resources of the state at their disposal. Engineers and designers have an opportunity for experimental work that no private company could afford."

A vast variety of aircraft suited to Russia's varying conditions issue from Soviet shops. There are polar planes able to function in temperatures 40 degrees below zero; planes with retractable gears, able to alight on land, water, snow, or ice; "sky-trains" with a "locomotive" plane towing passenger or freight-laden gliders which

can be uncoupled at their destination and glide down to earth whilst the "locomotive" proceeds. There are tiny planes called "sky fleas" and vast planes like the Maxim Gorky, which collided and crashed in 1935, only to be succeeded, if desired, by other monsters of a like or greater size.

(iii)

Machine-building in the U.S.S.R. stands today first in Europe: its only rival in capacity and output is the U.S.A. Already the output stands twenty-three times higher than the pre-war level. And the rate of increase is still on the steep upward incline. By the end of the Third Five-Year Plan in 1942 the output will be 225 per cent. that of the 1937 level.

Thousands of new types of machines have already been mastered, and the up-to-date engineering works built during these years can now cope with the mass production of any type demanded by the national economy or for defensive purposes.

In the year 1938 alone the machine-building industry was scheduled to start manufacturing 277 new types and sizes of machine tools, high-pressure turbines and boilers, improved generators, automobile motors, Diesel engines, cranes, cars, and agricultural machinery.

By the year 1942 the assortment of tools is to increase by 800: the proportion of highly productive automatic and semi-automatic tools is to rise considerably.

The Soviet machine-building industry eagerly scans the latest achievements of world technique. Students have ready access to the world's scientific and technical journals. The role of the designer has been strengthened and experimental departments of every kind increased and equipped. Soviet engineers seek to supplement foreign advance with native initiative.

The peculiarities of the Soviet system naturally and spontaneously tend to rapid progress in machine design and construction. The technical problems of the next five

years are clearly defined. It is known exactly what new machines will be required and in what quantities they will be produced. One design department will be responsible for a special machine or equipment. The actual amount of new design is reduced. Five-sixths of the work of technical staffs is wasted in the competitive tendering of capitalist countries.

Mr. Arnold Tustin, formerly chief engineer in the electrical department of the Metro-Vickers plant in Sheffield, "a highly responsible and absorbing job," as he describes it, and subsequently senior engineer of the technical bureau on traction motors at the Kirov Dynamo Plant, puts this point clearly, and the point itself is so important that we will quote his own words:

"For an engineer, a maker of machines, work in a Soviet factory offers tremendous satisfaction. The commercial principle that holds sway in capitalist industry very often forces engineers to spend their energy, strength and knowledge for nothing. In England, for example, there are several factories turning out one and the same article. When an order comes, each factory tries to get it at all costs. The engineers employed at these factories all begin making new designs without knowing whether their firms will get the order or not. But only one firm is given the order. The designs of all the others remain unused.

"It is quite different in the Soviet Union. Here all tasks are linked up with the development of industry. This makes every engineer sure that the work he has done will be used. Here there is not a single valuable design that is not converted into material value. The system of economic planning enables the engineer to see the fruits of his creation. And this is the most precious thing of all for him."

7. ARTERIES AND NERVES

(i)

OLD RUSSIA was a land of vast distances and miserable communications. In famines millions perished in one part of the country whilst wheat rotted in another for lack of transport. During the World War armies stood defenceless whilst munitions clogged the junctions.

The problem of transport and communications was multiplied a hundred-fold when the Soviets introduced the new era of intensive industrial production.

In the Soviet Union of today freight movement is immense. Rivers of iron, coal, cotton, lumber, and machines travel to feed the factories, from which in turn rivers of finished goods flow out to meet the needs of consumers.

Often these rivers of goods flow from, and to, long distances. They flow widest and strongest where the factories grow thickest—in Leningrad or Moscow, for instance. One broad stream will flow to these cities from the south, from the Donbas and the Ukraine. Another from the east, from the Urals and Siberia. But it is much to be desired that other streams should flow from other points to other points. A stream of coal, for instance, from Kusnetz in the Altai Mountains should reach the Urals, where it is needed to smelt the Ural iron ore. Generally, in the past, this desire has been frustrated.

Streams of freight need channels for their flow. Without the channel the stream is dammed. Sometimes the channel is a river and the freight moves in boats. Sometimes it is a railway track, and sometimes a macadam road. When speed is important and the weight light, the air may prove the readiest channel.

Ship, wagon, truck, and aeroplane all serve this many-sided transport system, and as the stream of freight grows in volume the strain on the system increases and the flow is threatened. Congestion is dangerous. A stoppage

would be fatal, akin to a block in the arteries or a paralysis in the nerves of the human body. The danger has been very real. The immense development of industry throws a huge strain on the Soviet transport system and necessitates from time to time drastic measures of improvement.

The Soviet Government had inherited a transport system inadequate, damaged, and lop-sided. Inadequate, because railway tracks were poor, locomotives primitive, rolling stock outdated and outworn, and rivers shallow and untended. Damaged, because war and intervention had led to years of neglect—7,600 bridges had been blown up and 100,000 miles of telegraph wire torn down. Lop-sided, because the railway system turned inwards towards Moscow and Leningrad, or outwards mainly towards the west and the Baltic and Black Sea ports, leaving cross communications between other regions almost wholly unsupplied.

Tsarist railways reveal Tsarist policy. A network of lines converged on Moscow and Leningrad that they might draw to these centres the wealth of Russia's colonies. The comparative abundance of lines to the west, planned primarily with a view to war, were bleeding the Russian empire of raw materials to the enrichment of Russian merchants and otherwise to the benefit, not of the Russian people, but solely of industrial Europe.

Links between district and district, between east and west, between colony and colony, or people and people were few and far between. European Russia possessed 11.3 kilometres of railway for every 1,000 square kilometres of land, Asiatic Russia 0.6 kilometre.

The Soviet Union planned a radical change, and if in the earlier years the change in the transport map has been slower than in either of the other maps, the work actually done has been great, and the speed quickened as soon as L. M. Kaganovitch, builder of the Moscow subway, was appointed People's Commissar of Railways. In two years the 50,000 daily car-loadings were almost doubled.

All are familiar with the Trans-Siberian railway, rolling on and on for 6,000 miles over level steppes and mountain passes: the longest railway system in the world. Day

after day, with a terrible monotony, the steppes sweep past the carriage windows. Occasionally the line rises, and then hills merge into mountains where torrents roar and dark forests blot out the brilliant sunlight. Six thousand miles from east to west the Trans-Siberian railway carries man and freight. The new demands for transport found the old system utterly inadequate; its single line of rails, its needless curves and summits, and its antiquated rolling stock dammed up the stream of freight and threatened imminent disaster.

That single track, however, is now a double track. Light rails and bridges are replaced with heavier ones. Sleepers have been increased in number, chemically treated, and strongly ballasted. Curves have been straightened out, gradients removed; high-powered locomotives with ten driving-wheels draw long trains of giant bogie-trucks. Special locomotives, suitable for long runs through arid deserts, condense the steam into water and re-use it, ridding the train of a water tender. The drawn load has been increased by 50 per cent., and the speed by 20 per cent. to 30 per cent. The latest model of express locomotive is said to be capable of a speed of 180 kilometres an hour. Siberia has moved nearer in time to Moscow, and the cost of freight has dropped from a penny per ton-mile to less than half a farthing.

New railways give value to many things that were worthless before. A pine log has no value in the heart of a forest hundreds of miles from means of transport. It receives value instantly when a railroad approaches, and greater value still when hauled to a saw-mill and cut into planks.

Turkestan employed only a portion of her priceless irrigated lands for cotton culture, though Leningrad, Moscow, and Ivanovo were dangerously dependent upon cotton from America and Egypt. The reason was simple. Turkestan needed food and devoted valuable cotton lands to the growth of grain. Yet Soviet Siberia had grain enough and to spare. So a railway was cut for 900 miles over mountain ridges and across illimitable deserts and steppes. On April 28th, 1930, the Turkestan-Siberian

railway was finished, seventeen months ahead of schedule time.

Similarly Magnitogorsk is now knit by a railroad to Karlaly; Karaganda to Lake Balkash; the Ukraine to the Volga regions; the Urals to the central areas via Kirov, Kazan, and Kuibyshev. The new line from Guriev to Kandagach on the Orenburg-Tashkent route serves the important oil-bearing localities of the Emba area.

The Third Five-Year Plan lies before us, projecting a freightage increase from 355 milliard ton kilometres in 1937 to 510 milliard in 1942, an increase of 44 per cent.

Since, however, the gross output of industry is to increase by 82 per cent., it would appear that the pressure on the railways is bound to continue and to increase. The difficulty is to be met. Eleven thousand kilometres of new permanent way are to be provided; 8,000 kilometres double-tracked; existing tracks and stocks used more intensively, with addition of 7,370 new and high-powered locomotives, 178,000 new four-axled freight-cars and 12,000 new passenger-coaches. A gondola-type truck of 100 tons, able to unload in one minute by a special car dumper, is on the drawing-boards.

Wasteful transit must cease. Various long hauls must be avoided. Local coal—such, for example, as that near Moscow—will be and is being mined and consumed locally; Siberian timber will not enter Soviet Europe if its importation can be avoided.

Experiments are made with totally new methods of rail transit: the “aerotrain”, for example, consisting of two zeppelin-shaped cars suspended from a single-rail track, and the “spherotrain” with its stream-lined cars running on huge motorized ball-bearings in a grooved track. But these are things of the future.

(ii)

Road and motor vehicle supplement rail and locomotive. Tsarist Russia had 1,900,000 miles of railless roads. Interminable crazy ways through vast spaces. Stretched end to end, these roadways would reach an eighth of the way to

the moon, and save for 6,250 miles of paved macadamized highways, the rest, with their ruts, holes, pits, and rickety bridges, scarcely sufficed for the peasant cart and were useless for motor vehicles. "The real curse of the land," says Grinko, "is its roads". The chief reason is the scarcity of stone. The peasant said, "Why worry? The roads will be hard in winter time." The heavy frosts make rivers and streams like macadamized boulevards. But what of the summer time and the mud and dust? The old roads no longer meet Soviet needs.

The First Five-Year Plan, therefore, called for 22,500 miles of newly macadamized and modernized highways, with orders to each town and village to repair and maintain its local ways. The roads were overhauled. The age of the motor-car had come.

The Third Five-Year Plan provides for 128,000 miles of new road, and an increase of motor-cars from 570,000 to 1,700,000.

Two million chauffeurs are to receive their training. The deserts, with their endlessly shifting sands, are to be provided with half-track motor-cars, run on two rubber tracks, laid down, like caterpillars, by rollers. These swift "mechanized camels" will replace the old slow caravans of the deserts and the reindeer and dog teams of the Arctic regions.

A network of air lines links the far-distant places of the Soviet Union with the centre. Many of these lines, such as that from Moscow to Tiflis, Tashkent, and Alma-Ata, are 3,000 miles long. The line from Minsk to Kamchatka, via Vladivostok, is 8,000 miles, twice as far as from London to Bombay.

Regular air services are established between Moscow and Berlin, Paris, Stockholm, Iran.

(iii)

Transport by water is cheaper than transport by rail or road, and will relieve the pressure upon both. Soviet rivers are immense, capable of carrying vast loads of freightage.

Of the nine largest rivers in the world, four are in Siberia. The steamer route on the Irtish and the Ob is longer than that from Liverpool to New York. Yet commercially these rivers cannot compare with the Volga. The Volga can do the work of six railways placed by its side. With its thousand tributary rivers, the Volga forms one of the greatest water-systems in the world. The Volga and other rivers in European Russia have been, or are to be, united by canals, and river-transport lines are to be lengthened, reconstructed, and improved. Later they will doubtless be joined up with the Siberian river-system.

The Dnieper, as we have already seen, is navigable from mouth to headwaters, thanks to the new Dnieper power-station and locks.

The projected Volga scheme is to be vaster still, and when completed the Soviet Union will possess a water highway unrivalled in the whole world, linking the Black and Caspian Seas with the Baltic and the Arctic by deep-water rivers and canals, and bringing goods by water from all the world to Moscow. Lumber and grain will go south to the Black Sea, and coal north from the Don to the Volga factories. The northward-moving stream of coal will narrow as the factories along the way are fed. The grain-stream and the lumber-stream moving south will broaden out as the farms and saw-mills along the route are tapped.

To complete this huge undertaking will require, beside the deepening of the Volga itself, the construction of a canal 60 miles long and over 200 feet wide linking Volga and Don.

At present the Volga transports some 30 million tons of goods a year—approximately half the total tonnage transported on Soviet rivers. It is calculated that in five years' time, when the Volga schemes are under way, this figure will be doubled, and in ten years' time quadrupled.

An important section of the scheme, as described in the preceding chapter, is the erection of two power-stations in the region of Kuibyshev, with a combined capacity of 3,400,000 kilowatt-hours. This has already been commenced. It will solve irrigation problems in a vast, drought-stricken area and increase navigation facilities on

the Volga and its tributary, the Kama River. Rightly, it is described as the largest engineering project in the world.

Yet another huge water-way, already completed, connects the Baltic and the Arctic, running by means of a chain of locks over the hilly watershed between these seas. It is a water-way of great significance in view of the growing importance of the all-winter port of Murmansk, which gives the Soviet Union direct access at all times of the year to the Atlantic routes.

Its building was an immense undertaking: 21 million cubic metres of soil were excavated; 2½ million metres of rock torn out by dynamite explosions. Two million eight hundred thousand logs from Karelian forests were used for construction of spill-ways and dams, and the wooden-walled locks, by which the ships were raised from height to height across the uplands which separate two seas.

Mighty dams sprang up where forests stood. In one place a dam, several miles long, has trapped a stretch of water twice the size of Lake Geneva, which in its controlled fall feeds the locks and drives the turbines of five power-stations, producing energy for timber, chemical, and mining industries.

On May 19th, 1933, a continuous ribbon of water stretched from the Baltic Sea to the White Sea and gave an exit to the Arctic Ocean. It is no longer necessary to sail around Norway, Sweden, and Karelia on the journey from Leningrad to Archangel. The stormy 17-day voyage through the North Sea is shortened to six days through the quiet forests and fenlands of Karelia.

“Man—how proud it sounds,” said Gorky as he stood upon the platform on the opening day.

“The canal is ready. Start on another canal!” and the workers went, and began construction on the Moscow-Volga canal, which is now completed. Coal and grain, fish and oil from the south, timber and stone from the north, reach the capital by water and relieve the rails. The Panama canal took twelve years in the building: Soviet engineers, with modern machinery, cut the Moscow-Volga canal, involving almost the same amount of excavation and concrete, in five years—less than half the time.

Moscow now enjoys the advantages of a deep port and a noble expanse of lake. A pure water supply is provided for each citizen, of 600 litres daily, against New York's 484 litres. Already the Stalin water-works, the greatest in Europe, supplies 615 million of litres of water a day, soon to be increased to 738 million litres.

Within a few years Moscow port, in the heart of European Russia, will be linked directly with Baltic, Black, Azov, Caspian, and White Seas. The vastness of its conception, and the speed with which this plan is being carried out, are the measure of the Soviet man.

By 1940, 80,000 miles of water-ways will be navigable for deep-draught vessels: "The blast of their syrens will be heard in the heart of the Soviet capital as they set forth to the principal cities of the Soviet Union, to the five Russian seas and the oceans beyond."

8. SOCIALIST HARVESTS

FOOD, CLOTHING, housing, and the provision of material things necessary to live an ample, cultivated and civilized life are the objects of industry. Industry is a means to an end, not an end in itself, and must be judged by its ability to produce in the necessary quantities and of the necessary quality the things we use and the things we eat.

The list of such things knows no end; from the food industry, bread, meat, fish, butter, eggs, sugar, fruit, vegetables, wine, tinned goods, and the like. From light industry, woollens, linens, silks, knitted articles, shoes, and leather goods; men's wear and women's wear, furs, soaps, tobacco, timber, and glass; toys and gramophones and thousands of similar articles.

(i)

Food industry in the strict sense was non-existent in the old Russia. The backwardness of the country, the scarcity of large towns and proletarian centres, the low standard of living of the urban lower middle classes, and the self-sufficing system of economy that prevailed so largely in rural areas, made no demand for large food enterprise. Small scale and domestic production of food articles sufficed. The rich had their own means of supply without the medium of great industry.

When, however, a whole people advanced to a new order of life, there arose a wholly new demand for mass production of foodstuffs. This had been clearly seen and clearly stated from the first. Stalin put it neatly when he said: "Socialism can succeed only on the basis of a high productivity of labour, higher than under capitalism, on the basis of an abundance of products and of articles of consumption of all kinds, on the basis of a prosperous and cultured life for all members of society."

This demand of necessity involved a series of highly

developed food industries, and the two Five-Year Plans met the need with much success. The People's Commissariat of Food Industry has built 1,000 new plants; 256 bread factories, 197 mechanical bakeries, 70 milk factories, 82 creameries, 28 tea factories, 14 oil-pressing mills, and others too numerous to specify.

Food plants demand foodstuffs, and the basic raw materials they need are now available in abundance, supplied by hundreds of thousands of collective and State farms: collective live-stock and dairy-farms in Siberia, collective fisheries in the Far East, collective and State tea-plantations in Georgia, market-gardens in the Volga region, and sugar-beet plantations in the Ukraine.

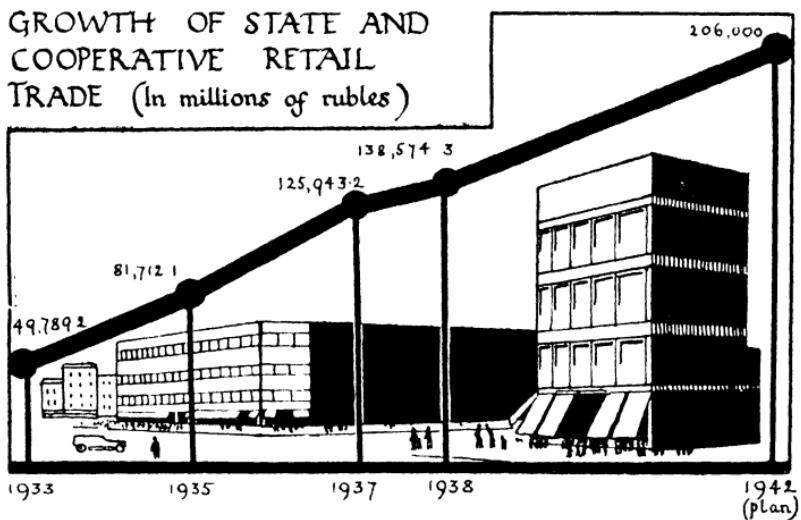
First and foremost was the need for grain. From lack of grain, through prolonged drought or other causes, Russia has suffered from repeated famines. In 1937 a grain crop of 7,300 million poods was harvested. The harvest for a five-year period before the War had averaged little more than 4,000 million poods. The Third Five-Year Plan provides for an increase of 27 per cent. That means that at the end of 1942 the Soviet Union should be harvesting about 8,000 million poods of grain. The word famine has lost its sting. There will be no more famine in the Soviet Union. No future war will be lost through lack of food.

The factories which today turn grain into bread or confectionery recall, by way of contrast, Maxim Gorky's description of a pre-war baker's life in his tale "Twenty-six Men and a Girl": "Day after day in a flour laden atmosphere, amidst the filth brought in from the courtyard on our boots, in the stifling redolent heat, we kneaded the dough and turned it into pretzels, moistening them with the sweat". Bread today is made in bright, sunlit halls, and never touched by human hands, made by workers with a seven-hour day, who take a shower before work begins and are regularly manicured. No longer will another Sholem Aleichem describe the women quarrelling at Jonah's bakery, exposing how one had accidentally rolled a soiled bandage from an injured finger into the dough, and another had lain for a nap with a piece of dough for a pillow.

Sugar figures show an increase as great as wheat. The retail trade in 1936 was 329,000 tons; in 1937, 467,500 tons, in 1938, 580,000 tons. In the Third Five-Year-Plan the sugar-beet harvest is to show a further increase of 37.2 per cent.

Retail trade figures reveal similar increases in other foodstuffs. Between the years 1933 and 1937 sales in butter advanced by 260 per cent., in eggs 510 per cent., in sausages 730 per cent.; years, of course, when plenty was pursuing

GROWTH OF STATE AND COOPERATIVE RETAIL TRADE (In millions of rubles)



famine, but these increases are far from ceasing, and the Third Five-Year Plan provides for marked advances.

The Soviet Union grows its own tea and bottles its own wines. Georgia produced 35,000 tons of tea-leaf in 1938. Until recently the Soviet Union was producing 160,000 bottles of champagne a year: France produces 50 million bottles. The Soviet's output is to be increased by 1939 to 3 million.

(ii)

Tsarist Russian peasants went barefoot or they bound their feet in straw and rags. In Tsarist Russia only a small

percentage of the population wore leather boots or shoes—the total annual production prior to the War amounted to about 20 million pairs. The Soviets planned at least one pair a year for each citizen. That means at the moment 170 million pairs a year. The estimate for 1942 is 235 million pairs, an increase over 1937 of 143 per cent.

It is sometimes said that a country's civilization is measured by the soap its people use. The sale of soap in the Soviet Union has increased many dozenfold since 1913. In 1936 the rural population purchased eight times more soap and perfumery than in 1928. Significant increases are projected for the next Five-Year Plan.

Tobacco is in demand in Russia as in other lands. The supply was short so long as tobacco was imported. Today the Soviet Union produces its own tobacco, the collective farms of Abkhazia grow leaf equal to the finest Turkish brands, and Soviet cigars, an innovation, rapidly find favour. Variety of brands is large and increases. Professor Hanson remarked, as we stood in a tobacco shop in the Crimea, whereas two years previously he had counted a dozen varieties, today he observed a dozen times as many in that one shop alone. In 1937 the Soviet factories turned out 89,000 million cigarettes. The Soviet Union stands second in the world amongst tobacco-producing lands.

* * * * *

(iii)

Provision for an increase in the consumption of goods from one and a half to two times is the task of the Third Five-Year Plan. Provision is made for a parallel rise in real wages to make increased consumption saleable.

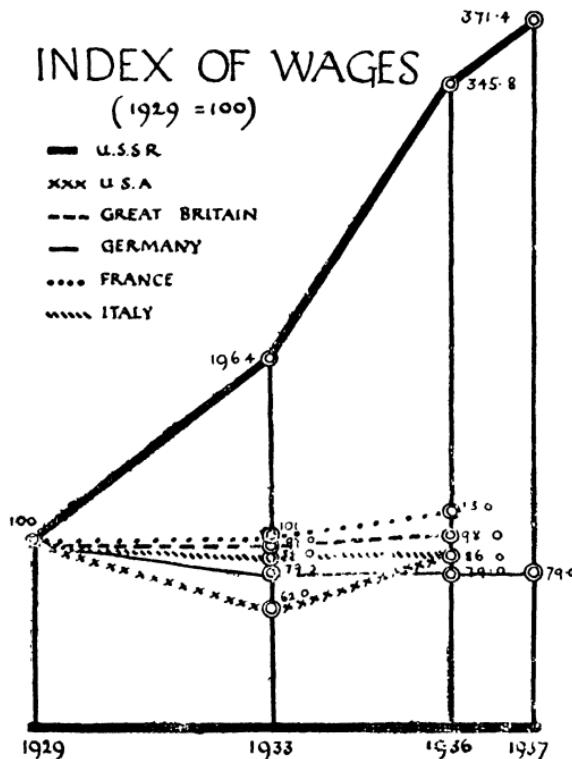
During the Second Five-Year Plan the total consumption by the people of the Soviet Union had increased more than twofold, during which period prices fell and wages rose.

Certain years of that period, whilst emerging from the dangerous days of agricultural crisis, saw many dramatic rises.

Falling prices, rising wages, and increased social amenities

are the causes of a real advance in the standard of living and the consumption of goods.

(1) A table lies before me showing some of the products which, during the three years from January 1st, 1934, to January 1st, 1937, suffered steady and consistent drop in

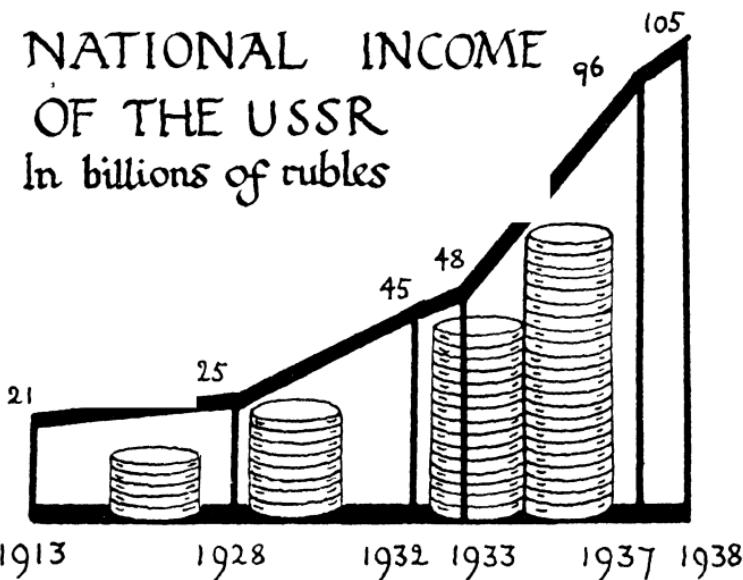


price. Bread fell more than half; butter the same; eggs dropped nearly three-quarters; meat was down to 63.3 per cent., and lump sugar to 27.3 per cent. of 1934 prices.

During the same period, it is instructive to note, prices in Germany showed a corresponding and sinister rise: potatoes from 6 pfennigs per kilogram to 9; butter from 275 to 312; beef from 135 to 169; eggs from 10 pfennigs to 12 pfennigs apiece.

(2) A rise of wages accompanied the fall in prices. Wages of postmen, office workers, teachers, students, industrial operatives, all rose. Wage rises occurred right along the scale. The average annual wages of workers in general more than doubled during the Second Five-Year Plan. If 100 represents the wages received in 1929, wages rose in 1933 to 196·4 and in 1937 to 371·4.

(3) An increase in available social services is the third factor that contributes to the rising standard of life. The



1938 budget was to increase maternity benefits from the 785,600,000 rubles of 1937 to 991,500,000 rubles. The number of factory and office workers to be accommodated in rest-homes and sanatoriums was to be increased by 348,000 over the figures of 1937, with similar increase in pioneer camps and the number of children attending them.

The Third Five-Year Plan schedules the following tasks for development of social services in the years 1937 to 1942: To raise State expenditures on cultural and everyday needs of working people in cities and villages, i.e. expenditure on social insurance and State outlay for

education, health protection, aid to mothers of large families, and every-day services to workers and office employees to 53,000 million rubles, as against 30,800 million rubles of 1937.

Hospital beds will increase by 30 per cent. In the Uzbek, Tadjik, Kazakh, and Kirghizian republics the increase will be twofold; in the Armenian republic three-fold, and in the Turkmenian republic fivefold.

The rise in the national income is an excellent test of a rise in the general standard of life in a country with no great extremes, as in ours, of wealth and poverty. The rise in the national income in the U.S.S.R. is shown in the accompanying graph.

9. UTOPIAN ASSIGNMENTS

THE U.S.S.R. has reason to be proud of the success of its Second Five-Year-Plan, but its leaders are wise to utter a caution against premature enthusiasm. Not yet is the standard of living in the Soviet Union equal to the standard of England or the U.S.A. They know it and say it, and permit others to say it. Honest in criticism of themselves, they honestly permit criticism from others. Such at least was my own experience.

Three times whilst in Russia I was asked for a frank opinion as to what I had seen and learned: once at Moscow, once at Rostov, and once at Odessa. Scrupulous care was exercised to report me exactly, and proof-sheets of the interview were submitted. "Did I desire", they asked, "upon reflection to make any alterations?" Then, and then only, did they publish the result of the interview in full: not omitting the criticisms.

One criticism, or rather it was a warning, was directed against over-statement as to the nature of their present achievement in comparison with other lands. In the rate of production, both of capital and consumable goods, they have indeed surpassed all capitalist countries. In total bulk of goods produced they have surpassed all but the U.S.A. But in the production both of capital and consumable goods *per capita* they were not yet abreast of leading capitalist countries.

It was not easy to make some of the younger Soviet people understand this. They had never travelled. They could not compare their standard with that of England, Germany, or the U.S.A., which they had never seen. They knew by daily experience how rapid is the increase in Soviet capital and consumable goods, and they knew by statistics how total production in their own land compared with that of others. They did not know, or did not grasp, the relative production per person of the population, and it is in that respect that they have not yet caught up with the technically advanced lands of the capitalist world.

In rate of development and in rate of increase of output the U.S.S.R. easily leads the way. Industry in capitalist countries, after the crisis of 1929, had barely reached 103·5 per cent. of its 1929 level in 1937. Since then it has suffered from a renewed economic crisis. Large-scale industry in the U.S.S.R. in 1937, on the other hand, reached 428 per cent. of the 1929 level. Total industrial production, heavy and small together, reached 371 per cent.

Again, in 1938, the output of the entire industry of the U.S.S.R. increased by 412 per cent. of the 1929 level, and in large-scale industry as much as 477 per cent.

In capitalist countries industrial production in 1938 declined by 13·5 per cent. as against the preceding year, dropping to 91 per cent. of the 1929 level.

Rate of growth is, then, the present outstanding feature of Soviet production, and many considerations combine to foster the belief that the rate will not decline.

But output per head of the population is another matter, and here the U.S.S.R. has failed as yet to catch up with England, Germany, the U.S.A., or other technically or economically more highly developed capitalist lands.

In the words of Stalin, at the 18th Congress of the Party: "In 1938 we produced about 15,000,000 tons of pig iron; Great Britain produced 7,000,000 tons. It might seem that we are better off than Great Britain. But if we divide this number of tons by the number of population we shall find that the output of pig iron per head of population in 1938 was 145 kilograms in Great Britain, and only 87 kilograms in the U.S.S.R. Or, further: in 1938 Great Britain produced 10,800,000 tons of steel and about 29,000,000,000 kilowatt hours of electricity, whereas the U.S.S.R. produced 18,000,000 tons of steel and over 39,000,000,000 kilowatt hours of electricity. It might seem we are better off than Great Britain. But if we divide this number of tons and kilowatt hours by the number of population we shall find that in Great Britain the output of steel per head of population was 226 kilograms and of electricity 620 kilowatt hours, whereas in the U.S.S.R. the output of steel per head of population was only 107 kilograms, and of electricity only 233 kilowatt hours.

"What is the reason for this? The reason is that our population is several times as large as that of Great Britain and hence our requirements are greater: the Soviet Union has a population of 170,000,000, whereas Great Britain has a population of not more than 46,000,000. The economic power of a country's industry is not expressed by the volume of industrial output in general, irrespective of the size of the population, but by the volume of the industrial output taken in direct reference to the amount consumed per head of population."

That is lucidly put, and I have ventured to quote it at length both as a good example of the simplicity of Stalin's style in speaking to the people, and also because it endeavours to keep the people aware of realities and avoid premature self-congratulations.

On similar reasoning output per head of coal is less than that of France, and considerably less than that of Britain and Germany. Output of electric power per head of the population in 1937 was less than half that of France and almost one-third that of Britain.

The U.S.S.R. also still lingers behind in volume of production per head of population in such manufactured goods as textiles, paper, and soap.

This criticism of premature enthusiasm is necessary. It is the spur to drive the U.S.S.R. within the next Five-Year-Plan period to make the insufficiency good. The goal is clear. The people must surpass in both capital and consumable goods, not only European countries, but the technically more advanced U.S.A. This accounts for the drive to increase electric power, coal, iron, steel, and other raw materials, to improve organization and the technology of production, to take full advantage of modern achievements in science and invention, and to master not only quantity of output but quality too.

In the words of V. Molotov: "In accordance with Lenin's teaching that 'productivity of labour is, in the final analysis, the most important, the principal factor for the victory of the new social system', we must secure the maximum development of socialist emulation and the Stakhanov

movement, the steady strengthening of labour discipline in all enterprises and institutions, in all collective farms; we must insure a high productivity of labour on the part of the workers, peasants, and intelligentsia, and productivity of labour worthy of a Socialist Society."

BOOK IV

THE GREATEST GOOD OF THE GREATEST NUMBER

- 1 The Moral Results of Socialist Planned Production
- 2 New Horizons
- 3 The Open Gateway
- 4 The New Womanhood
- 5 Soviet Women in the East
- 6 The Democracy of the Workshop

I. THE MORAL RESULTS OF SOCIALIST PLANNED PRODUCTION

“IN MATERIAL results the Soviet Union moves up a steady incline: her moral advance is steeper still.” In those brief words an acute social and religious observer, who visits Russia year by year, summed up his impressions of the achievement of the Soviet Union.

Unquestionably the material results are astonishingly great, and may well be envied. The moral results are still more striking, and cannot be obscured by all the mistakes and crimes which from time to time have caused triumph to Soviet enemies and sadness to Soviet friends.

Moral advance should, indeed, have been expected, since the material advance itself is due to moral causes. For a programme which deliberately resolved to organize all the productive forces on a basis of service rather than profit, in order that all individuals, whatever their age, sex, language, or race, should share according to need, has established itself at the very outset upon moral principles.

The Soviet Union believes in science. It believes in morality too, and precisely on that account avoids the constant complaint heard in England of late, and especially when the social order shows grievous signs of cracking, that moral growth lingers behind scientific growth. British scientists themselves, in view of the prostitution of their achievements, join in the chorus of complaint, though they too ignore, as Russian scientists consistently refused to ignore, the things that happen outside their laboratory walls.

In the Soviet Union it is different. Moral growth advances side by side with scientific development, and in the Plan and its results the Soviet achievement is seen at its best.

Before proceeding to the final stages of this book, where we shall trace in its various aspects the fullness of life which socialist principles and planning have brought to the childhood, youth, manhood, and womanhood of all races

in the Union, it will be profitable, for the sake of clearness and conciseness, to enumerate very briefly some elements in the advance along the Soviet moral front.

1. The Plan lifts the emphasis of life from personal acquisition to socialist accumulation. Unhealthy and unsocial development of the acquisitive instincts has long exercised the mind of thinkers and moralists. Its dangers became increasingly apparent in the nineteenth century and reached a climax in the twentieth, calling forth a host of protests, with Professor R. H. Tawney's merciless "Acquisitive Society" at their head. Soviet planned production with one masterly stroke severed the taproot of selfish acquisition. A shoot here and a shoot there may still arise and call for constant vigilance. The master shoot, however, wilts because the master root has gone.

True, hard work increases wages, and hard study the rate of wage; but the all-absorbing master principle of acquisition which inspires—and debases—capitalism, has gone for ever in the Soviet Union: the profit motive shrivels through lack of opportunity.

2. The Plan provides profitable employment for all. None is deprived of the opportunity of work. Booms and slumps are gone, and unemployment with them. Unemployment ceased in 1931, never to return. In the nature of things, and given a scientific plan, none need be unemployed so long as any human wants are still unsatisfied. When that is done, leisure comes, and leisure, when it comes, comes to all. So long as work is needed, work is free to all. Workers are in demand in the Soviet Union; and wages rise.

3. The Plan provides personal security for all. In capitalist countries, personal security is achieved by means of personal and private savings. The individual dare not trust himself to "the whole". The whole has never guaranteed his safety, or such guarantee, in the shape of dole or old age pension, is so inadequate and hedged around with so many humiliating restrictions, that wise men supplement it by personal saving. In the drive for security the master instinct for acquisition forms its strongest ally.

The Soviet citizen depends upon the whole community. It guarantees his safety. He stands secure. If he is sick, he receives side pay, ungrudging in amount, and subject to no time-limit. When old, he draws an ample and honourable pension, with no more shame attached to it than is attached to the pensions of retired Cabinet Ministers.

4. The Plan, on its negative side, removes fear and worry. Fear depresses and devitalizes. Christian moralists are right in their attack on fear. To remove fear is to release energy. The man who hid his talent in the earth where it remained without increase did so because he was afraid. "Fear not" was a word constantly on the lips of Christ.

The vast moral achievements of the Soviet Union are in no small measure due to the removal of fear. Fear haunts workers in a capitalist land. Fear of dismissal, fear that a thousand workless men stand outside the gate eager to get his job, breaks the spirit of a man and breeds servility. Fear of unemployment, fear of slump, fear of trade depression, fear of sickness, fear of an impoverished old age lie with crushing weight on the mind of the worker. A few weeks' wages only lies between him and disaster. He lacks reserves.

Fear binds and devitalizes the middle class as well. They perhaps fear more, for they have more to lose, though in a different way. Buttressing themselves around with safeguards on every side, they tremble at the breath of change. Fascism is built on fear: the fear of the possessor in face of the dispossessed. Fear kills initiative and adventure; it makes some servile and others brutal.

Nothing strikes the visitor to the Soviet Union more forcibly than the absence of fear. The Plan removes at one stroke many of the most obvious fears. No fear for maintenance at the birth of a child cripples the Soviet parents. No fear for doctors' fees, school fees, or university fees. No fear of under-work, no fear of over-work. No fear of wage reduction, in a land where none are unemployed.

5. The Plan discourages lies, deceit, and sabotage. The premium placed on lies, deceit, and sabotage by capitalistic industry has been a prime cause of distress to those whose moral conscience is normal and sensitive. It is not easy to

speak strict and generous truth in most branches of competitive industry and commerce. The atmosphere differs so widely from school and church that many avoid the latter lest they add the vice of hypocrisy which they can avoid to the subtle deceits which they cannot. They despise men who commit the deeds on Monday for which they crave pardon on Sunday.

Sabotage and ca'canny is another blemish of capitalistic industry. To live with skilled mechanics and to work with them, as I have done, is to see ca'canny in its proper light and recognize its social value under a capitalist regime. It is at once a virtue and a vice. It is a vice to check eager, helpful work. It is perhaps a worse vice from a social point of view for a highly skilled and able-bodied man to let a work-rate from which he suffers no harm set the standard for others physically less strong or technically less skilled or, through too large an output, to cause slump and unemployment. Avoiding one evil, we run into the next. Production suffers and character deteriorates.

The Soviet Plan discourages lies. There is no need in Soviet Russia to sell paper boots as leather. Nor is one man's speed at work another man's undoing. Speed, skill, and invention increase the pool of goods in which all share. By paving the way to higher technical achievement, skill opens the door of higher wages to all who will learn it. Trade Unions in U.S.S.R. encourage all means of labour-saving that augment production.

In Russia it is wholly social for a good comrade to do good and abundant work. It is social to speak the truth and possible to do so, without risk of unemployment. It is social to augment invention and encourage discovery in a land where technological unemployment ceases to exist.

6. The Plan resolves the struggle between the egoistic and altruistic motives. Disunited, these motives tear our personality in two. United in a common all-absorbing purpose, they lift the personality to unsuspected heights, like waves combining to achieve a higher crest in place of sinking through simultaneous clash. It is a happy order in which my more strenuous and profitable employment enriches others as well as, or even more than, myself.

Here, the motives are frequently at variance and man is internally torn asunder. In the Soviet Union they combine, and the interior tension is relaxed. The Soviet workers eagerly fit themselves for skilled or higher tasks, commanding higher salaries and satisfying their egoistic urge. But they are aware, even while they do it, that the higher skill adds more amply to the pool; that satisfies the social urge. The altruistic and egoistic motives run hand in hand in Soviet industry, just as on an English cricket field, where team-play serves the side and wins as well the prize of personal distinction.

7. The Plan creates a new sense of ownership and responsibility. The knowledge that every man, woman, and child has a place in the plan and a share in its product creates a sense of ownership. Peasants, artisans, students, and children speak of "our" country, "our" factory, "our" store, "our" metro.

Actually "our" metro was built not wholly by paid artisans and labourers, but with the help of volunteers who carried home with them a new technique, a new standard of workmanship, and a new sense of ownership: a sense which has sometimes its amusing side, as when a youth put his foot between the closing doors of an underground railway coach to "see what would happen" and received the shaking of his life by a peasant woman for "damaging our metro".

A sense of ownership carries with it a sense of responsibility. It is this sense of ownership and responsibility which makes trade unionism in the Soviet Union so perplexing to English trade unionists. In capitalist countries men work on other men's property: in the Soviet Union they work on their own. Sedulously from the first Lenin cultivated this sense of corporate ownership and responsibility: every cook, he said, must be trained to run the country: it is *her* country.

8. Planned production creates a new attitude to work. For the Soviet Union is a land where all must work. No idle classes are tolerated. We talk much cant about the dignity of work, especially those of us who strive all our lives to escape it. Lenin combatted from the first the idea

that a working class is lower than a leisured class and manual work lower than directive tasks. The plan needs help from all and ministers service to all. Work must be embraced. The school-child is taught the pride of working in a workers' society. He is to know from his earliest years what he is doing and why he does it. Seeing his own tiny work as essential to the whole, he puts conscience behind it and acts in the comradely way. A leisured *class* is a social impossibility in the Soviet Union, though leisure *for all* is a right, and an increase in leisure an aim.

9. The Plan reduces crime. Crimes are largely, though by no means wholly, committed by the very poor and committed through the fact of poverty. Such crimes lessen as poverty departs.

Another fruitful source of crime is the hurry to be rich. Remove that impetus; remove, too, the ennui and monotony due to overwork and work at tasks which lack social inspiration and drive men to gambling, drink, and sex perversions, and at one stroke you clear half your courts and half your jails. The decline of crime in the Soviet Union is a fact.

10. The Plan adds zest to life by providing creative tasks for all. "Building socialism" is the fashionable phrase. It is a task to which all are called. Each has his or her niche in the whole. Each feels he or she is wanted. And the tasks at which they work are of social value. No tasks are futile, or unsocial, or performed simply as a means for gaining access to the money-stream. What this means for childhood and youth we may learn on a later page. Perhaps it is the highest gift of all.

11. The Plan brings its benefits and its challenge to every race or colour or people in the Soviet Union. The plan is comprehensive. It has regard of the whole industrial and agricultural field and of every native race. Neither for military reasons alone, nor for economic reasons alone, were industry and agriculture re-distributed afresh. Humanity demanded it. Men are brothers. There is work for all and benefit for all, and though the highly developed sections under the Union move at a quicker pace than formerly, the backward elements move quicker still,

and the day of their equality draws near. That for the scattered races and backward peoples is the message and the good news of the Plan.

From this bird's-eye view of moral progress we shall pass straight on to examine in detail what the new planned production with its new moral basis does for childhood, youth, womanhood, manhood, national minorities, and the world at large.

2. NEW HORIZONS

(i)

THE PLAN succeeds, and its success provides the material basis of abundant life for each and all. That is the natural, but none the less welcome reward of reorganizing the industry of a country on a scientific basis and with a single eye to the needs of the community as a whole. The plan promised abundance. The abundance comes.

This abundance must be examined in terms of human life. The plan was a means to an end; and the abundance which it produces is a means to an end. And that end was certainly not abundance for abundance' sake, still less was it merely a means for keeping machines employed or scientists busy. The end of the abundance was—let us remind ourselves of fundamental principles once again—to secure the maximum of safety and well-being to all upon an equalitarian basis. To give to each man, woman, and child, of every nationality, race, tongue, or colour, equal freedom from exploitation, equal justice, equal opportunity for work with remuneration appropriate to the service rendered to the community, equal and ample leisure, and equal access to education and security.

How does this work out in practice? Let us begin with the child.

What impressed me most in Soviet Russia was not her factories and material statistics, but her children.

It was no happy moment, for an Englishman, on returning to London, to contrast the physical, mental, or spiritual opportunities of English children with those of the Soviet Union. I hardly recall, during a journey through five Soviet Republics and several great Soviet towns, having seen a really hungry or under-nourished child; and my wanderings by myself, of many long hours on many occasions and entirely alone, took me into all parts of the various towns and villages and at all hours of day and night. There is, of course, no need for hunger in a land where

unemployment has ceased, where wages rise, and cost of commodities falls.

To have been strictly scientific, however, my standard of comparison should have been, not London or Paris, but the Russia of two and twenty years ago, where life, so far as it concerned mother and child, was, as we have already in some degree observed, at its lowest human ebb.

For although Russia, under Catherine the Great, was one of the first countries to institute, in 1782, a system of State education, the schools were few and confined entirely to towns. A later Tsar, Nicholas I, perceiving that education was a menace to autocracy, forbade secondary education to serfs, workers, or peasants, reserving this and other forms of higher education for the privileged classes.

The struggle for education was long and bitter, and not in any substantial measure successful under the Tsarist regime. The mass of people still lay beyond the pale of even the most elementary forms of education. The fine scholarship and art that existed was limited to a favoured few, and confined to the Russian tongue. National minorities were almost wholly without elementary schooling.

Church and Tsar united, alas, in nullifying the attempts of liberals to spread popular education.

In 1904 3.3 per cent. of the population were at school in Russia, compared with 19 per cent. in the United States. And whilst England, as far back as 1877, was spending a very inadequate sum equivalent to 12s. 8½d. per head on education, Russia was spending only 1s. 0½d. In 1914 Russia occupied nineteenth place on the list of world literacy: 72 per cent. of its people could neither read nor write. In some Asiatic provinces this figure reached 99 per cent.

Then came the War, the revolution, the civil war, the blockade, and the famine of 1921 and 1922. Education was brought to a standstill.

Educational reconstruction did not in practice begin until 1922, although the earliest decree of the Bolshevik Government had proclaimed that education was to be universal and free to all, irrespective of colour or race. It was rightly perceived that if communism was to succeed at all, it would be only upon a basis of high culture as well as high

production, and also that high production was only possible on the wide basis of educated workers. Lenin took steps to secure both. Seventeen years have passed since 1922, and that noble decree reaches out to its fulfilment. It is difficult to imagine what had been the position of the worker today if the British Empire had shown the same enthusiasm for education and the same regard for all its citizens of every race.

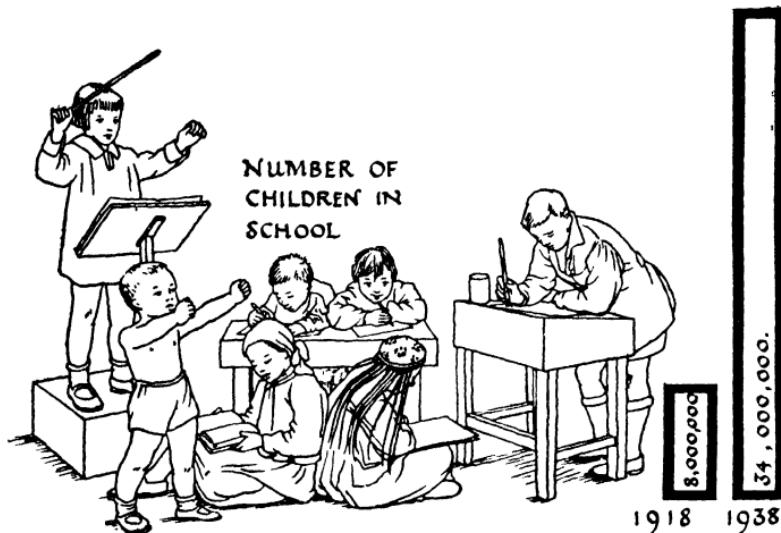
Untold difficulties have blocked the way of Soviet educationalists. Many teachers of the old regime refused to work in the Bolshevik regime; others used their posts as a leverage for anti-Soviet activities and propaganda. School buildings and equipment were out of date and hopelessly inadequate. Theories of education were numerous. Every kind of educational system and experiment was tried—the Dalton Plan, the Project Method, the Brigade Laboratory and the like. Examinations were abolished and then reinstated; though with a vital difference. Examinations in the Soviet Union serve as a test for scholarship, not as a door to educational privilege.

Typical communist education was slowly formulated, and embodies many of the main features of the Western educational system, whilst developing interesting and valuable features of its own.

In the meantime the main struggle was concerned with the provision of teachers and buildings. Teachers are not trained in a day, and it is hard to build schools when every other thing needs building at the same time. And it is an achievement entirely without parallel that the number of scholars in elementary schools has been raised from 8 millions in 1918 to 34 millions in 1938, that teachers in adequate numbers have been trained, and that buildings have been provided to cope with this immense influx of pupils.

To every Soviet child in the land the school door now stands open, and though the buildings sometimes leave much to be desired in finish, paint, and general decoration, and often savour in appearance too much of the barracks, still they are provided. The provision in 1935 of 70 new schools for Moscow, with another 120 in 1936, each hold-

ing 800 children, gives some idea, at least, of the quantity. The quality will follow: it is a common saying in the Soviet Union quantity first, then quality. The policy differs from that which gives superior conditions to the select few and inferior to the rest. What is inferior or good is shared by all, and all rise together.



(ii)

The Russian educational system settled down slowly. The Plan of 1932 to 1937 discarded the Dalton and other systems, limited rampant self-government, re-instituted terminal tests and reports, re-introduced the study of history and geography, provided a subject curriculum not unlike our own, and made education a process for producing useful, purposeful, and happy citizens.

There were, however, marked differences.

1. Education from first to last is provided for all without monetary payment, from the excellently equipped nursery-school right up to the university course.

2. School education is to continue to the age of eighteen. That goal is not yet reached, but the Soviet Union is nearer to it than other lands.

Here are some of the achievements.

Nearly 2 million children under the age of eight attend a full course at the nursery-infant school, 1 million more receiving some other less systematic form of education.

No children between the age of eight and twelve escape school today, and by 1940 education for children of eight to fifteen will be compulsory throughout the Union, from the Arctic to the desert steppes. By the same date education in all towns, industrial settlements, and rural centres will be compulsory from eight to eighteen.

3. The type of education and the principles which inspire it differ in vital respects. It is primarily education for social service in line with the Christian principle upon which communism is based: "From each according to his ability and to each according to his need." Education is free and given equally to every child, for every child needs it. On the other hand, a return, more exacting than any asked for here, is demanded of the child from first to last. Though education lacks monetary charge, it places the recipient under obligation. Soviet training is training for service. The ideal held out to a child differs entirely from that still too common here: "Work hard and get on." The child is incited by all around him to "work hard and you will be able to take your part in building socialism. Work and fit yourself to render comradely service to those around you, to your country, and to the Soviet Union." The difference is one of emphasis.

4. Manual work is not only held in high esteem, it is deemed essential. Soviet education is designed to produce the complete citizen, and in Soviet eyes no citizen is complete apart from manual training. Soviet education bridges the gulf between manual and intellectual activity.

The peculiar process by which this is done is called Polytechnization and needs careful understanding. It demands a section to itself.

(iii)

This hideous word polytechnization does not mean technical training. It is not an attempt to teach the child

the use of particular tools or how to perform the special technical tasks which await him when he enters industry.

Polytechnization represents a whole-hearted effort to give the child from first to last, and with growing clearness all along his course, a thorough understanding of the nature of productive industry itself and as part of a social whole; what industry is for; what place industry occupies in the social order; what effect industry exerts upon the worker, and what effect this or that particular product of industry exerts upon the social body as a whole.

It aims not at making a worker, so much as a many-sided social being.

It aims at producing a new intelligentsia, men who understand materials and their properties, who understand the significance of the various things produced and the scientific nature of the forces, electrical or otherwise, necessary for their production. But men also who understand the effect of new modes of production upon the whole organization of life—who, in a word, understand the parts of life in relation to the whole of life.

Here is a principle of the very highest importance, and the Soviet Union does well to stress it. It is fundamental if we are to build up a unified and diversified corporate body composed of intelligent and willing units. It is worthy of further illustration.

An engineer, for example, trained as a boy in the Soviet system of polytechnization, when about to build a bridge in a particular place and at a particular time, would see in his mind's eye more than the space to be spanned and the materials and labour requisite to do it. He would see the need for the bridge, the changes beneficial or otherwise of its provision, and the conditions and reactions of those who worked on its construction. He relates his own particular job to the whole, of which he, too, forms part. He would be sensitive to anti-social work.

A chemist, too, perfecting an explosive mixture or a fertilizer, will have a clear vision of the place his invention will occupy in shaping the human whole.

Polytechnization aims at an all-round education of a highly trained worker: it is the exact opposite of that

which produces the narrow specialist. With polytechnization training, many in England would be far more restive than they are when compelled, for the sake of a livelihood, to engage in work which cannot aid, and may seriously harm, the whole community.

Polytechnization aims to give to every man, woman, and child that breadth of outlook and social sense which is reserved here for the few. It is a factor in deciding a child's ultimate career. A boy, for instance, will tell you that he wishes to be a locomotive construction engineer, "because the country is in great need of developing its transport". A girl will tell you "I am going to study gardening. Like Michurin I want to cross tomatoes with potatoes and cherries with apples." Another boy is studying electricity because he wishes to invent an apparatus for transmission of electric power from a distance without a direct wire which "would have great importance for agriculture".

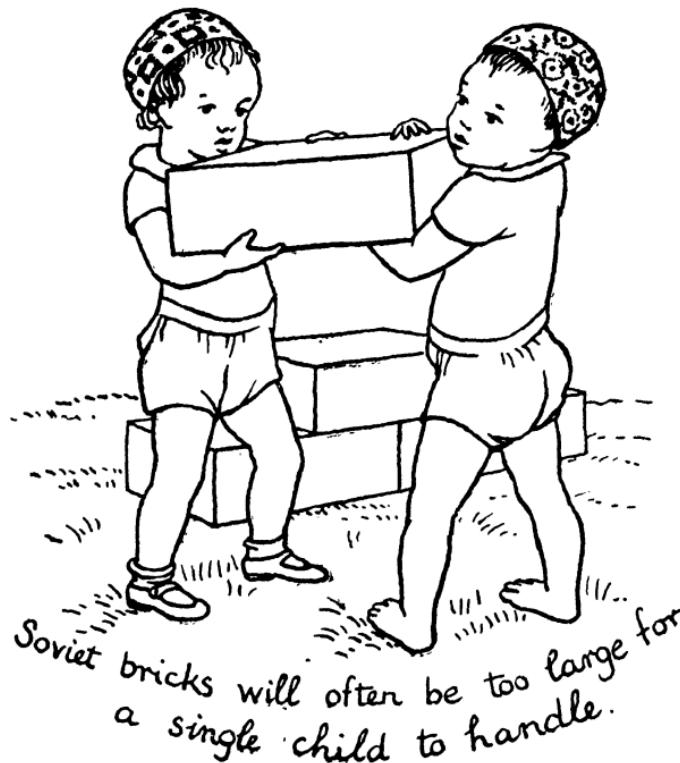
(iv)

This close connection of the school with the outer world proves to be the real disciplinary agent in Soviet education. This is the clue to the self-disciplined Russian child. For such I heard them to be and such I found them. In a great theatre, for instance, I would find some 1,500 children of various ages and apparently unattended. Boisterous they certainly were in mirth, but completely controlled, and with total absence of horse-play amongst the smaller children or between older boys and girls.

School for these Soviet children has brought close contact with the outer world. From its earliest years the child was conscious of being a citizen. The difference in the child's mind between itself and its parents or teachers was a difference of experience at a common task, and nexperience—just such a difference as, for example, on an English cricket-field exists between the boys and the professional cricketer who instructs them.

The close resemblance, indeed, between Soviet schools and English playing-fields is often noticed by English observers, and especially in this matter of discipline. Nobody

dragoons a boy on the cricket-field. There is no need. He loves the game. He seeks to excel at the game. The cricket professional is not his enemy. He is the expert to whom the boy looks for guidance. So the boy provides his own discipline, and the relation between the two is easy and happy. Such relationship exists between the Soviet



child and the Soviet teacher. And such is the secret of the discipline of the Soviet child.

This relationship between teacher and taught, and this emphasis upon citizenship and responsibility, begins in pre-school years. It begins in tiniest infancy, amongst the one- and two-year-olds in the crèche. It is the meaning of the sentence written over crèche nursery doors: "Never do anything for the child which it can do for itself."

From the tenderest years the Soviet child is taught to work with others at useful and corporate tasks. Soviet children like English children, for instance, will play with cubes. But Soviet cubes or bricks will often and purposely be too large for a single child to handle. He will call a companion, and together they will build their house of cubes. Co-operation becomes instinctive.

The child learns too, taught in simple form, to understand the nature and the meaning of the real world around him; and to take interest in it, as my small English children love to follow a housemaid and aid her with real tasks. I observed in the playground of nursery schools that paths resembled miniature turnpike roads with coloured traffic lights and "stop" signs which children themselves could operate.

The spirit of the team is the spirit of the school in a more real sense than here. There is no lack of incentive to individual achievement, but only in so far as it is consistent with the welfare of the team. Children receive class marks, "excellent" or the reverse, but not class places, first, second, or third. Competition is desirable and stimulates a child, but in the Soviet school it is competition between class and class, not between child and child. Competition is keen in a Soviet school and, with the system of class "excellents" in place of class lists, acts socially. Clever children are saved from temptation to self-seeking or jealousy. The clever child has incentive to stir duller scholars and turn their "bad" marks into "excellents", as clever members of a cricket eleven correct the faults which jeopardize the team.

Self-discipline becomes second nature in such schools. Classes elect their own leaders, who check attendance and promote order. Other children form committees which aid in school kitchens and in regulation of sanitation. Teachers and representatives of the children meet at regular intervals to discuss work and other matters; the wall newspaper to which any child may contribute is a training-ground for critical as well as constructive citizenship.

Needless to say, the cane and any other form of corporal punishment are altogether absent from Soviet schools.

From the home, too; for to administer corporal punishment to a child is illegal in the Soviet Union.

(v)

If he should wish it, the Soviet child is aided in his out-of-school life. Aided in his games or hobbies. Aided in the kind of way English boys and girls are aided at Scouts and Guides and other social clubs. But aided with a thoroughness and a lavish expenditure astonishing to those who know the financial struggles of English clubs. Palaces of Youth spring up all over the Soviet Union; I visited them in Kiev, Moscow, Odessa, and elsewhere.

Beautiful in themselves—some of them exceedingly beautiful—these Palaces are even more beautiful in their promise for enthusiastic and adventurous youth. I spent an evening in one of them where 2,500 children were at work in 209 circles on 69 different subjects. It is worth a brief description.

In the first room a score of small boys and girls, dressed in lovely light blue frocks and suits, were dancing, taught by a member of the Moscow ballet.

In the next room children were at work on sculpture: one child finishing a graceful figure of a girl about to dive; another a group of arctic explorers gathered round Professor Schmidt, another a convincing group of Spanish women, soldiers, and children.

Then a history room, its walls adorned with maps of Moscow and scenes of Russia's past. The map was peculiarly ingenious, tracing, as you pressed a button, by means of coloured lights running along tubes, the stages of the cities' growth and the projects for tomorrow. On one whole wall was painted the city of the future, the sun lighting its steel-latticed towers and transmitting power to the city through a vast concave mirror: a Wellsian city of the super-mechanical age, yet with a haunting mysterious beauty in its delicate blue haze—a hint of the new beauty which the Soviet Union needs and will get.

The mechanical rooms were innumerable. In one, boys were making model aeroplanes, one boy re-boring a

cylinder and making certain other adjustments: he had nearly won the prize for long-distance flight. The lathes, drills, planes, in their workshops were beautifully made and appropriately small in size.

There was a dynamo house, a railroad room, a testing-room, a complete model of the Metro, a completely equipped film-making room.

The aviation-room contained its own air-tunnel and wind-chamber and a delicate instrument to test the resistance of home-made planes.

A short-wave transmission station connected the Moscow home of Pioneers with the Pioneers' Palace in Leningrad, and the children can themselves communicate between the two cities.

These palaces and their innumerable regional homes in various parts of great cities have a double object in view: to help the individual child to develop his or her particular gifts to the full, and to enrich the community with all that a fully developed individual can give. Their leading men deem it no waste of time to welcome and foster any talent that youth shows; and in addition to a highly trained permanent staff, leading scientists, explorers, actors, artists, or specialists in all departments of industry will devote hours to mingling with the children, to observing them and instructing them and selecting the abler amongst them for further development.

The number of summer camps by sea and lake and forest grows from year to year. Summer camps become part of the normal life of the Soviet child. No large factory lacks its camp or its holiday home, and small industrial concerns link up together to possess one.

I visited Artek, the most famous of all camps, in a lovely spot on the Black Sea Riviera, and spent an evening with the children, entertained by them to tea and after tea to a concert. Then the children gathered round, plying me with every kind of question, most especially about Spain and England's attitude. They had much to ask about the Nyon Treaty and had an astonishing knowledge of and interest in international affairs.

Organized games form a part, but not a predominant

part, in camp life. The children swim, run, jump, and play tennis as they do here. They have other vital interests. Boys and girls at Artek were collecting geological and botanical specimens as they roamed along shore or mountain by day. And in the evening girls as well as boys crowded the large carpenters' shops, making boxes to exhibit them and take them home.

Boys mingle everywhere with girls, in schools and camps, sleeping in separate houses at night.

(vi)

The spread of education in the Soviet Union shows itself in the new passion for reading. Old and young, boy and girl, man and woman all desire literature. Illiteracy has almost gone, and with the new capacity to read comes a new demand for books. The needs of children and youth come first.

The peoples of the Soviets are a reading people. It is doubtful if any people in the world read more.

It is twenty-one years since the Revolution, and the growth in book publishing has been incredibly rapid.

The United State Publishing House was formed in 1930. It includes twelve publishing houses in various fields, such as social and economic literature, fiction, technical and scientific works of all sorts, encyclopædias, dictionaries, and other literature. Its output is enormous. Tsarist Russia, in its peak year 1912, published 133·6 million copies of books; the U.S.S.R. in 1937 published 571 million copies. In 1938 an issue of 700 millions was anticipated.

The State Publishing House for Children's Literature issued about 45 million copies of books during the year 1938, millions more were issued by children's publishing houses of the Union and of the autonomous republics.

For very young children 36,300,000 books are to be published, among them Grimm's fairy tales and D. Harris' "Uncle Remus". Tolstoi's and Chekhov's fairy tales and stories in the "Miniature Book" series are to be issued in editions of from 500,000 to 1 million copies.

The small children's books have a peculiar fascination, full of fancy and vivacity and printed in vivid colours. A small child's geography book will begin with the picture of a letter in an envelope, and then its travels to the pillar-box, the sorting office, the railway train, the steamer, the ice-sledge; through hot countries and cold countries and among people with white skins, yellow skins, or black skins. The thing is concrete, vital, and to a small child arresting and understandable.

For the older children, "Book after Book" is the name of a series of forty-two famous Russian authors, together with such well-known foreign writers as Dickens, Victor Hugo, Jack London, and Ernest Seton Thompson. "Uncle Tom's Cabin" by Harriet Beecher Stowe, "Rob Roy" by Sir Walter Scott, "Oliver Twist" and "David Copperfield" are also on the list for publication in the children's series, together with stories by Fenimore Cooper, Mayne Reed, and Jules Verne.

(vii)

The Soviet child is encouraged from its earliest years, in school, in books, in theatre, or in great parades and reviews of the Union's many national peoples, to transcend the barriers of sex, race, language, or colour, to regard every other child as a brother and to win for each such privileges as he or she enjoys.

I perceived the spirit of this thing most dramatically in a theatre I attended in Moscow.

This theatre, like many more, built and arranged like an ordinary theatre, was devoted entirely to children. The children had their own restaurant and foyer, their own skilled actors and actresses, who devoted their whole lives to children's plays and acted with consummate skill. Around the walls of the foyer were photographs of the children's favourite stars. In the corner of their refreshment-room was a huge glass case of special toys and dolls.

Some 1,500 children, ten years of age and upwards, awaited the play with vivacity and the usual anticipative

chatter, but with no roughness or horse-play, though the absence of attendants was most marked.

The play was called "The Negro Boy and the Monkey". It opened with a forest scene where black boys and girls fought and quarrelled, until, utterly weary, one cried out, "Oh, if only we had a leader!"

At that, a splendid and vivacious Negro boy leapt on to the stage and said: "Why not choose as leader a boy who can run best, jump best, and sing best?" They had a contest, and he was their choice.

Then he went hunting, and only escaped death from a python by the sudden leap of a monkey, which saved his life.

He and the monkey became firm friends—it was a charming child's play—and both returned to the forest clearing.

Then exploiters arrived, guns over shoulders, money-bags at their sides, and dressed in plus fours and check suits—very plus fours and very large checks.

The forest children scattered, but the monkey was seized and shipped away. Where? I looked at the masthead and saw—the Stars and Stripes!

The Negro boy leapt on board another ship and went in pursuit. He landed in Moscow; and in the next scene we see him in a chocolate factory with other workers.

The dinner-horn blows, and all depart for dinner. The boy is left alone.

Looking to right and left, and seeing he is alone, he advanced to a large map of the world and, flinging his arms around Africa, sobbed.

At that moment a Komsomol apprentice boy in white overalls enters by one door and a similarly dressed girl by another door. They steal up to the boy and, placing each a hand on his shoulder, seek to cheer him; the girl at length says brightly: "I have a spare ticket for the circus tonight; come with us." And there the first half of the play ends.

During the interval the two Komsomols and the Negro boy enter the theatre and, passing the stalls, climb nimbly up the pillars to the dress-circle, where they lean over the balcony to watch the rest of the play—which is the circus to which the Negro boy had been invited.

The usual merry foolery of the clowns followed, and then came the performing animals, and amongst them our old friend the monkey, thin, jaded, and miserable. He stumbles, and the circus manager cracks his whip savagely.

The Negro boy can endure no more, and with a piercing cry utters the monkey's name.

The creature, all life in an instant, leaps over the orchestra, runs deftly over the children's heads in the stalls, climbs up the pillar to the dress-circle and, amidst tumultuous cheers, monkey and boy are united once more.

Then a black out. On the screen we see the ship returning to Africa. The curtain rises for the final act.

Again we are in the African forest. Again the black children cluster around, this time mourning their lost leader. But down a distant glade come Boy and Monkey, their arms filled with parcels tied up with gay ribbons, a present for every forest child.

Never can I forget the last scene and speech. "These presents," said the Boy, "are from the children of Moscow to the children of the dark forest. For the Moscow children wish every child in all the world, be his colour white, red, yellow, or black, be his race what it may, and be his language what it may, to enjoy the same full richness of life as Moscow children now enjoy."

I confess to a lump in my throat as I left the theatre and said to myself. "This is a communist theatre, in communist Moscow. These are communist actors playing to communist children. And this is Sunday evening—for such, indeed, by coincidence, it was—and seldom have I heard so moving a message of the old theme which I learned as part and parcel of my early Christianity, that all children are my brothers and sisters, to be regarded as such and planned for as such: the theme that formulated my own earliest purposes was re-enacted here.

That planning to give rich equality of life to every child is precisely what the Soviet Government is doing for every nationality, colour and race, in all the Soviet Union. What it teaches to its children, it practises through its own administration and on the most gigantic scale.

3. THE OPEN GATEWAY

THE SOVIET UNION is a young country. Youth controls factories, workshops, and scientific institutes. The managers of the Moscow Dynamo works are under thirty years of age. The majority of those participating in the Arctic exploration expeditions were under twenty-five years of age. The percentage of the population under twenty-nine years—that is, of those who either were born under the Soviet regime or retained but blurred recollections of Tsarist days—is 63. A similar percentage in Britain is 50.

What has the Soviet Union done for its youth and what is it doing?

At fifteen years of age—that is, at the end of the seven-year school age, which extends from eight to fifteen years—two alternatives present themselves: the child may enter the ten-year school and proceed to the university or technical college, and an extremely large percentage do so; or he may start at once to learn the profession of his choice.

Should he choose to become a technician—an engineer, say, or an aviation mechanic—he enters a machine-constructing technical college, where he studies the elements of mechanics. The course lasts for two years and is free. On his seventeenth birthday, and not before, he can enter industry. As a juvenile he works for not more than five or six hours a day, receiving an appropriate wage.

At the end of his eighteenth year he leaves the works, and after an examination enters a higher technical college. For the next five years he undergoes an extensive course of theoretical and practical service. On his twenty-fourth birthday he emerges as a qualified engineer.

During all this time he has received, in addition to his meals, instruments, and text-books, a monthly allowance which makes him independent of outside financial aid.

At college he meets students from every country in the Union. He comes into closer touch with the outside world than in his school days. He may become one of the five million members of the Communist League of Youth. He comes of age politically. He becomes politically aware,

which is altogether desirable if politics is "the art of living with one's fellows". At the age of eighteen he or she obtains the right to vote and are eligible for election. Of the 1,143 deputies of the Supreme Soviet of the U.S.S.R., 284 are between the ages of eighteen and thirty.

In the earlier days of the revolution this external activity was much overdone, though necessity demanded it. The best young members of the Communist Party built entire



Politics is the art of living with one's fellows.

works during the First Five-Year Plan and educated large numbers of the backward peasantry.

Today, happily, none of that work, nor overwork, is needed, and there is a happier blend of study with external work, such as tree-planting or harvesting in holiday times.

But politics and work do not absorb his whole time. Soviet youths are as keen sportsmen as British youths, and Soviet teams can hold their own with any teams they meet. We constantly read of their triumphs in Paris, where they are welcomed. Soviet youth swims—inventing and perfecting new strokes—skates and climbs. In parachuting he—and she—have led the world. I have watched children

of ten receive their first lesson in air-mindedness: as when a small girl eagerly offered herself to be tied to a fixed chair at the end of a long beam, to be swung through the air at the height of a two-storied house, landing head downwards at the far end, and then swinging back again. The next stage is the leap, attached to an open parachute, from the parachute tower. After that the real thing: 500,000 Soviet men and maidens indulge in parachuting.

II

Mr. Maurice Hindus, writing in "Asia" of March 1938, assures us that communistic organization of industry in general, and agriculture in particular, has definitely succeeded. As proof of this he selects the following dramatic instance. In the city of Kiev, in April 1937, 1,112 girls left school at the age of eighteen. Of these not more than 10 per cent. considered their education to be complete and went to work. The remaining 90 per cent. passed on to some form or other of higher education. I suppose that in England the percentage would be nearer 5 or 6.

This wholesale desire for higher education seems to be incredible, and the ability to gratify the desire more incredible still. Three considerations may help to account for it:



After that the real thing

First, there is no financial difficulty which hinders a clever or keen student from entering the university or institute for higher education. Students receive a wage according to the standard reached in their work, but in any event adequate for maintenance. An examination must be passed, but it is not competitive, as here, where a certain limited number of places and certain limited financial resources alone are available. The examination merely tests fitness to profit by the course of advanced study.

Secondly, the parents have no need of the early wages of their children to eke out the family income or provide maintenance in their own old age. Their own earning power, the absence of unemployment, and the certainty of a pension on retirement, or maintenance if sick, cause them to encourage rather than hinder their child's desire for a university education of the highest order they can get.

Thirdly, and not of least importance, is youth's own eagerness for the highest possible forms of mental equipment. There is a zest for learning; especially, but by no means exclusively, in the several fields of science.

The number of students in universities and technical colleges is to reach 650,000 during the Third Five-Year Plan. Secondary education is to grow still more rapidly, and the number of those with a completed higher education will increase from 750,000 to 1,290,000.

And that is but the beginning, not the end. For the fundamental aim in the matter of education is to raise the whole cultural and technical level of the working class to that of engineers and technical workers and to remove for ever the distinction between the man who works with his brain and the man who works with his hand.

Stalin expressed the intention with his usual simplicity in words spoken at a recent conference of Stakanovites:

"The elimination of the distinction between mental labour and manual labour can be achieved only by raising the cultural and technical level of the working class to the level of engineers and technical workers. It would be absurd to think that this is unreasonable. It is entirely reasonable under the Soviet system, when the productive

forces of the country are freed from the fetters of capitalism, where labour is freed from the yoke of exploitation, where the working class is in power, and where the younger generation of the working class has every opportunity of obtaining an adequate technical education. There is no reason to doubt that only such a rise in the cultural and technical level of the working class can undermine the basis of the distinction between mental and manual labour, that it alone can insure that higher level of productivity of labour and that abundance of articles of consumption which are necessary in order to begin the transition from Socialism to Communism.”

The goal is that of a wholly educated nation.

* * * * *

We have traced the course of Soviet youth from infancy throughout childhood to the higher ranges of education in university or technical institute, and now reach the point where he is ready to launch boldly forth into the world of affairs with which throughout his whole career he has been acquainted, and the principles of whose industries he has been encouraged to understand.

What awaits him now?

It is at this moment, I venture to think, that the profound difference between planned production for community consumption and production which is either unplanned or planned only for the safeguarding of profits and in the interests of the profit-making class, shines out most clearly, and altogether to the advantage of the former.

For the Plan gives to Soviet youth a creative purpose and a hundred opportunities to work it out. The Plan seeks his help. Unlimited possibilities open up before him in the spheres of science, economics, general culture, and politics. For Soviet youth the nightmare of unemployment is for ever gone. His future is full of hope. There is a niche for each and a call for each. There is for each a promise of security, banishing devitalizing fear; and an honoured place in a cause which gives, or can give, zest and nobility to life.

Vivid indeed is the contrast between the outlook on life

of the average Soviet youth, from the outlook of the average British youth. No one in close touch with British youth, or with their parents too, can fail to know the fears, anxieties, and strain with which they face the future, whether in times of slump through which we are passing, or in times of boom into which we may shortly come, only with the knowledge that another slump lies inevitably ahead.

More than most perhaps am I placed in a position to know the inner side of this question as it affects the various types and classes of boys and girls of England; being at the moment Chairman of Governors of an elementary school, of two large secondary schools, and of a great Public School, the oldest in the English-speaking world: having also held similar posts in the great industrial centres of the north.

All this contact with youth makes vivid the problems, depressions, and the discouragements which beset youth on the threshold of life.

There is general and disturbing anxiety in the later school years as to whether a job can be secured which will provide a livelihood. The number of useful jobs, they know, is limited, the number of applicants immense. Competition is severe. Even the strain of securing a job through examination often leaves the winner exhausted when the job is secured and glad to leave for ever the studies which secured it. Others, less fortunate, gain no job at all. Hundreds of thousands of boys and girls have been condemned to pass the post-school life without ever knowing the joy of work, lacking tools, room, skill, or resources to make their own employment. Life consists of hanging around street corners, with its morally degrading effects.

Youth—I am speaking now of vast numbers of youth in industrial centres—sees no way out. He lacks political knowledge. He cannot trace these things to their source. He feels that he is in the grip of fate. Luck rules. You are lucky if you have been born into the right circle. Lucky if you have brains. Lucky if you get a job. But, then, your luck may turn against you. All life is a gamble. Belief in a beneficent providence, or in purpose behind the order of things departs. Fate dominates.

How can good work be done against a background so black and so discouraging?

Or, when a youth is lucky and finds a job, how often can we call it a creative job? Innumerable young men and women, capable of achieving much and enriching the world with the things they could produce or the services they could render, eke out a miserable and precarious living as touts urging the purchase of commodities we neither need nor want. And how many more are tied down for life to routine tasks and dread the very inventions which may make even these tasks superfluous and cast the present workers on the scrap-heap of unemployment?

And, while many are unemployed, many more, and especially those in the more skilled type of employment, are seriously overworked. The end of the working day finds them too fatigued to take interest in the social and political order which so vitally affects their lives. The strain of keeping the skilled job they have secured is incessant. Age will quickly prove a handicap. In order to keep to the front there is danger of striving for showy or dramatic results. It is not easy to do solid work in the time allotted. Life shrinks to small horizons.

Some few, in the higher ranges of industrial or professional life, inherit, or gain by influence, or even win by open competition, in a struggle for which they have had all the advantages which wealth and leisure and every favourable circumstance can give, a sphere where life really has creative purpose, as in the case of many enterprising industrial concerns. I recall again my own experience. Such jobs are few and precious.

It is just these creative tasks that open up in the Soviet Union, not to a favoured few, but to all. All have a share in the ownership of industry and productive processes. All have their appropriate niche, and it is the niche of their own choosing. There is no hunt for a job. The jobs do the hunting. And each job is part of a greater whole. Nothing is haphazard. In whatever job he chooses, a Soviet boy may know that he is building up a national concern. What he does creatively affects himself, his family, his city, his fatherland.

Soviet youth is assured of healthy creative and attractive work, his perplexity lies only in its choice. It is no mere humbug when you speak to a Soviet child about vocation: each can hear an inner call and heed it.

* * * * *

It may properly be asked what has been the quality of the intellectual achievement resulting from this vast enthusiasm for education and culture in the U.S.S.R.? How is youth acquitted itself now that it enters into power? What results can it show, and are the authorities satisfied with these results?

As the preliminary need was for increased production, and as material production depended primarily upon the creation of a skilled and reliable technical staff, the question at first resolves itself into the quality of the engineering youth. On this question we may take such witnesses as the one quoted in the first chapter of this book as decisive. The more especially so since subsequent events support him.

The Moscow trials and purge of 1937 swept away many of the old managers and engineers and technicians and pitchforked youth, perhaps prematurely, into their places. It is interesting and instructive to observe the effects on production.

The plan for 1937 was to increase output over 1936 by 20 per cent. The purge produced a temporary slump. During the first half of 1937 industry showed no increase: it merely maintained the level of the previous year. The young men were learning their new job. In a half year, apparently, they had learned it, and set a quicker pace. The Government was encouraged, but only to a limited extent; and in setting the plan for 1938 they asked for an increase indeed, but for an increase of only 15.3 per cent. instead of 20 per cent. Every month showed an accelerating increase, and in July, at the end of the first half-year, the Government revised its plan to show finally an increase, not as originally planned before the purge, of 20 per cent., but of 21 per cent. Youth had triumphed.

So, too, the triumph of Arctic exploration, of geological

research, and the aviation feats which place the Soviet Union in the front rank of air-skilled nations, is the triumph of Soviet Youth and the justification of the new education.

So, too, youth triumphs in the Stakanovite movement for the speeding up of industry. Young people in every branch of industry strive to emulate the achievements of Alexei Stakanov, who reorganized the mining of coal, producing an immensely increased output, with advantage alike to the community and to himself. Peter Krivonos set the pace in railway transport; two young girls, Dusya Vinogradova and Tasya Odintsova, led in the textile industry; and two more young girls in agriculture.

One of the greatest industrial plants in Moscow, the Kaganovich State Ball-bearing Plant, is managed by Yusim, a young engineer who came to the plant direct from the university. He was appointed foreman in the forge as an ordinary engineer. His shift forged 46,000 to 47,000 retainers instead of 28,000. He had the distinction of being the first "Stakanovite"—as these scientific speeders of industry are now called—in the engineering world. He established one collective record after another, and after being awarded the Order of Lenin, he took over the entire control of the plant when the previous manager was removed for wrecking activities. Victor Lvov, who heads the People's Commissariat of the Machine-building Industry, is thirty-eight, and has reached his high post at an early age after an adventurous and interesting career. Left an orphan early, he dropped his schooling after four years and worked as farm labourer for rich peasants. Joining the Red Army at eighteen, he travelled over the whole country, fighting for the revolution. He then studied at a technical institute whilst working at the Red Putilov Engineering Works, and graduated in 1933. He received a diploma for his plan for a 60-ton open-hearth furnace. Sent to France in 1934 to study iron and steel production in that country, he returned in 1936, and was appointed Chief of the Steel Foundry in his former works, and later director of the works. In 1938 he was promoted by the Soviet Government to the post of People's Commissar of Machine-building Industry.

Assistant People's Commissar of Heavy Industry, Kon-

stantin Kartashov, is thirty-four years of age. He began to work in the mines when twelve. The Revolution gave him his chance. He studied with avidity first in the technical institute which was attached to the mine, and finally at the Mining Institute in Stalino. He graduated in 1930, and after two years became manager of a pit, where he instituted a system of work which lightened the labours of the miners and resulted in increased productivity of the coal-cutting machines. He was awarded the Order of Lenin, and after five more years was appointed manager of the Pervomaisky Coal Trust, then Chief Engineer of the Central Administration of the Coal Industry, and finally, in 1938, Assistant People's Commissar of Heavy Industry.

Not only young men, but young women too, trained in Soviet Institutes, rise to high posts. Tatyana Morozova entered the New Dawn Soap and Perfumery Factory in Moscow at the age of fifteen. The factory sent her to a special school for training trade-union functionaries, where she received a general as well as a special education. On returning to her factory she was elected Chairman of the Trade Union Committee, at the same time taking an interest in the management of the enterprise. She became Assistant Director, then Director, and now, at the age of thirty-one, is Chief of the Central Administration of the Perfume Industry which controls twenty-nine large factories.

Sugra Gaibova, Manager of Oil Field No. 3 of the Orjonikidze Oil Trust in Baku, is only twenty-six. She has been educated entirely under Soviet conditions. Graduating from her secondary school in 1930, she finished her course at the Industrial Institute in 1935, and started at once as foreman in the third field, and after displaying marked organizational ability, was appointed in 1938 to her present post of manager.

The Chief of the Central Aero-Hydrodynamics Institution is a young scientist, Mikhail Shulzhenko, thirty-three years of age. Sent in 1926 by his branch of the Young Communists League to a workers' preparatory school, and then to a technical college in Moscow, he subsequently joined the Aviation Institute, where his ability was quickly recognized. He received high commendation for his design

for a speed transport plane, and after graduating was appointed to his present post.

Nor is the Soviet Union backward in the arts. In 1927 several young Soviet musicians took part in the First International Chopin Contest of pianists held in Warsaw. Out of them, Lev Oberin, won the first prize. Since then at practically all international contests Soviet Youth rank first among the prize-winners. At the Third International Contest of Pianists in Warsaw in 1937 Zak and Rosa Tamarkina won first and second prizes respectively. Emil Hilels, who had won the second prize in 1936 at Vienna, won first prize at Brussels in 1938.

As with the piano, so with the violin. At the International Ysaye Contest in Brussels in 1937 five of the six prizes were awarded to Soviet violinists, first, third, fourth, fifth, and sixth.

And yet, as far as youth and education are concerned, there is to be no resting on laurels already won. The Third Five-Year Plan has more in mind than quantity. Though quantity precedes, quality is to crown educational achievement; and special attention is to be paid in the coming years to quality of education. A higher standard is to be set and reached, and as a preliminary step a thorough revision of text-books is contemplated: none but the best must be employed.

The end of the Third Five-Year Plan should show not only that 40 million out of a population of 168 million were studying in elementary and secondary schools, but that they were reaching a standard of education calculated to place the Soviet Union in the front rank of educated nations.

I can well understand Lion Feuchtwanger when he wrote after sojourning in the U.S.S.R. that "Soviet youth emanates a strength and joy which involuntarily astonishes me." And I can sympathize with Roland Romain's message to Soviet Youth: "You are the hope of the world, the seed of the future classless society of all humanity, a society without exploitation of man by man, without frontiers between the states, without hatred between races and peoples."

4. THE NEW WOMANHOOD

WOMANHOOD ENTERS a new world in the Soviet Union. Soviet women share with men a new equality in education, in political rights, in skilled work, in status, in culture. No world was more dark for women than that which went with the Russian Empire, none more bright than that which came with the Soviet Union.

Soviet womanhood earned her liberty. She paid the price of it with the blood of her best.

The Revolution which took Russia by storm in 1917 did not come unprepared. It was the climax of a series of desperate struggles, in which women were never far behind men. Often the women led.

When Christianity invaded Russia in the year 1000 it came from Byzantium and in a form which spelt subjection for women by Church and State. A youthful primitive agricultural people were overwhelmed by a monastic asceticism which in the oriental tradition regarded women as evil. Inferior places were allotted to women in church. Women might not approach the altar. At marriage, a man's ring was gold, a woman's ring iron.

In the Domestic Ordinance of Pope Sylvester in the sixteenth century woman was degraded to being a possession of man, the domestic head: she must obey in all circumstances: "If a wife refuses to obey . . . it is advisable . . . to beat her with a whip . . . the whip is painful and effective, deterrent and salutary."

The French Revolution had its Russian repercussions. Brave officers and intellectuals strove for freedom and suffered banishment to Siberia. Wives voluntarily accompanied their husbands, forced to leave every comfort, and even their children, behind them.

In the 'sixties and 'seventies of the last century devoted educated women left the city and its high remuneration to teach in desolate villages for a mere pittance, where they worked alone at the mercy of hostile authorities. Under Bakunin's influence in the 'seventies young women as well

as young men left the universities and, learning a trade, "went among the people" to learn from them: "the people know what they need better than we".

The Minister of Justice declared in 1877 that the success of revolutionary propaganda was due to the large number of women among the conspirators. This propaganda was carried on by living devotedly with women dulled by life in dreary, cramped, and dirty barracks and working sixteen hours a day in the factory.

In the heroic line of those who revolted from Tsarist oppression and cruelty, women were never wanting. Women served the causes of liberation with a fervour and contempt of death which yielded not an inch to the authorities. Their strength rose with their tasks.

Most revolutionary women in these earlier days were young, richly endowed in mind and soul, many of them beautiful and gifted with artistic powers. Their personal and romantic love was subordinated to the universal love to which they had devoted their lives, and accounts for the purity in mutual relations which subsisted between men and women of the revolutionary movement.

Since the 'seventies there has been an unbroken line of victims caught in the terrible official net which spread from Moscow to Sakhalin to catch the champions of liberty. Few more terrible places have I seen than the museums, where in room after room one may examine the records of those years of torture: contemporary pictures of prisons and prisoners and the means used to tame them. The data are enormous: portraits, photographs, statistical tables, drawings, farewell letters, relics, casts, instruments of torture. The impression is overwhelming, recalling the martyrdom of early Christianity.

Friendship and comradeship, the capacity for holding together, was, from the first, a marked characteristic of Russian revolutionaries. That, too, has left its stamp on the new order. Out of prison men and women shared their last penny. In prison the political prisoners lived literally in a commune, sharing money and food with meticulous care. All social barriers went, and ardent friendships based on common intellectual interests such as are seldom

found in freedom were formed, and persisted when freedom came.

To mitigate as far as possible the sufferings of thousands of prisoners, the Russian Red Cross was founded in 1881, and principally administered by women. It was women who did most to aid prisoners to escape.

Women were the soul of Russia's fight for freedom. And they were mostly young. Of the sixty-seven women prisoners at Maltsev between 1907 and 1912, eighteen were under age, thirty-seven between twenty-one and thirty, and only twelve over thirty.

A consuming thirst for knowledge and culture marked these women revolutionaries, and has left its stamp upon the future. In prison, wherever possible, they pursued varied and complex studies. The illiterate learned to read and write. The literate pursued self-directed studies. Small libraries grew up. The authorities, probably through ignorance of their contents, permitted books on philosophy more readily than books on social science, and much philosophy was read and seriously discussed. Women prisoners studied mathematics eagerly and read Nietzsche, Dostoevski, the Bible, Indian philosophy, or Tolstoi.

In 1887 the screw of oppression took a tighter turn. Brutality increased. Pogroms were ordered to divert attention. Prisoners were sent to Sakhalin and even remoter regions. Education was curtailed. Alexander III scribbled across a report sent to him by his Minister of Education, "No more education". Women's colleges were closed.

Hence the mass exodus of women students to pursue their studies abroad, mostly at this time to Germany, where the Socialists, Liebknecht, Bebel, and Kautsky, were active. Political science was now added to philosophy. In Switzerland Vera Sasulich fell under the influence of Marx and Engels, and at the age of forty added much to Russian Marxian literature. In a letter to a friend she tells of her life and her loneliness. For months, she says, she hardly spoke to a soul. Her life went on without human companionship. She lived on coffee and work. She seldom ceased writing before two in the morning.

During these years industrialism came to Russia. It came full-blown, with ruthless exploitation, unsoftened, as in England, with many legal and moral mitigations of its hardships. It taught, however, the power of the collective process of production. The modern industrial proletariat came into existence at a bound, and with it a fresh advance in the struggle for freedom.



*Lenin moved to... London and issued his paper *The Spark*.*

In 1895 a "Fighting Association for the Liberation of the Working Class" was formed. Lenin was a member. Four women were on the executive. One was Nadyeshda Krupskaya, who later married Lenin. Leaving the Grammar School in the 'eighties, Krupskaya studied educational theory, and coming into contact with radical groups, proceeded to study Marx, and subsequently taught

in the Smolensk Workers' College in St. Petersburg. Many of her pupils occupied prominent places in the Russian Labour movement and Revolution. She was arrested and exiled for three years, going at her own request to Siberia, where Lenin was serving his period of exile. They became engaged. Lenin moved to Munich on his release, and at Munich, and afterwards in London, issued his paper, *The Spark (Iskra)*. Krupskaya joined him and acted as editorial secretary. She became the mother of the revolution.

As the Russian Labour Movement grew year by year, women gained power, taking a leading part in strikes against evil conditions. Women wrung from the Government various concessions, such as the prohibition of night-work for women and children. And it was significant that the textile trades, in which the cheaper feminine labour was employed, headed the new unrest.

In 1905, on "Bloody Sunday", an immense crowd with ikons, images, and portraits of the Tsar went to the Winter Palace to present a petition: they were met with deadly rifle-fire. Faith in Tsar and Government departed for ever. Barricades were erected. A working woman, Karelina, had cried before the march: "Mothers and wives, do not dissuade your husbands and brothers from risking their lives for a just cause. Come with us! If they attack us or shoot us, don't weep, do not lament, be sisters of Mercy! Here are bands with the Red Cross, fasten them round your arms, but not before they begin to shoot on you." With one voice the answer had come back: "We will all go with you." More than a thousand lives were sacrificed, and among them many women and children. One woman, struck by four bullets and dying next day said, "I do not regret for a moment that I stood on the barricades".

The massacre of "Bloody Sunday" and its fellow at Odessa sealed the fate of Tsardom. I stood long one cold autumn day on that immense flight of steps leading down to the harbour, picturing the kindred massacre of innocent men and women.

Smidovich, secretary of Lenin's paper *Iskra*, when it was

issued from London, took a leading part in the Odessa risings. Her resource matched her courage. Arrested once in Kiev, with copies of *Iskra* upon her, she begged leave to go to the closet in the police yard. In an instant, flinging off her fur cloak and cap, tying a handkerchief over her head and in her cheap jacket, worn always beneath her costly cloak, she issued so swiftly and with such complete transformation that the guard failed to recognize their prisoner, and she escaped.

It was the pains and toils of Russia's womanhood throughout a century of struggle that helped mightily to pave the way for the Revolution and set its stamp on the new Soviet order. Inevitably it won for Soviet womanhood a status and dignity enjoyed in no other land.

No one was more conscious of this than Lenin himself, who said of it in its culminating phase: "In Petrograd, here in Moscow, in cities and industrial centres, and out in the country, proletarian women have stood the test magnificently in the revolution. Without them we should not have won. Or barely won. That is my view. How brave they were, how brave they still are! Just imagine all the sufferings and privations that they bear. And they hold out because they want to establish the Soviets, because they want freedom, communism."

Every characteristic of the line of heroic women fighters reappears in some form or other in the new civilization: their comradeship, their zeal for the common good, their scrupulous sharing, their sense of absolute equality, their hatred of exploitation, their belief in the proletariat, their passion for culture and learning. No one can fully understand the Revolution, nor the new life of the U.S.S.R., and the new lot and dignity and authority of its womanhood, who has not seen it in the light of this century of conflict and devotion.

* * * * *

When the old order collapsed and the new order took its place, every vestige of the old laws relegating women to subordinate positions was swept away.

Lenin put it like this, and in doing so echoed the words

of Karl Marx spoken sixty years ago: "There can be no talk of any sound or complete democracy, let alone of any socialism, until women take their rightful and permanent place both in the political life of the country and in the public life of the community in general."

Article 122 of Stalin's Constitution of 1938, written twenty-two years later, formulates with great precision the same intention:

"Women in the U.S.S.R. are accorded equal rights with men in all fields of economic, state, cultural, social and political life. . . . The possibility of realising these rights of women is ensured by affording women equally with men the right to work, payment for work, rest, social insurance and education, state protection of the interests of mother and child, granting pregnancy-leave with pay, and provision of a wide network of maternity homes, nurseries and kindergartens."

That expresses in a comprehensive way the charter of the new womanhood.

During the twenty-two years which separate these statements the principles they both formulate have been rigorously and consistently applied in every sphere of life. The whole organization of society bends itself to give the women's charter concrete expression. The battle against prejudice and inertia has been won; and industry, the professions, the arts and sciences are open doors to Soviet womanhood.

From the first women responded to the new opportunities with eagerness, and entered industry with an alacrity which astonished the Western world. A vista had opened out before them. They leapt as comrades to the side of men. In the early years, when enemies pressed on every side, women mounted the barricades, served as soldiers and scouts, or drove armoured trains.

When Kornilov's army attacked Leningrad, 200,000 women went to the front. Plotnikova, still half a child, like Joan of Arc, rallied the exhausted soldiers of the 19th Cavalry Regiment in their retreat. She spurred her horse

and led them to the charge. The enemy was repulsed; the girl commander was carried off the field severely wounded.

When the last shots ceased, women flung themselves with similar enthusiasm into the task of building socialism. They crowded into factories; forcing themselves where necessary, and with the entire concurrence of the authorities, into every branch of skilled industry.

Into unskilled or less skilled factory life women had entered in considerable numbers prior to the Revolution, forced by economic necessity, as in other capitalist countries, for female labour was cheap, and women, drilled by the discipline of the home, worked more steadily than men, and were regarded as more docile and tractable.

All who obstructed the new order in the Soviet Union were swept aside. Old-fashioned managers and technicians who affirmed that women lacked the capacity for skilled technical work were soon compelled to change their view.

In 1928, for example, the Leningrad Tractor Works were short of hands. Women instead of men were sent to them by the Labour Exchange. The management were indignant: "A woman could not turn a shaft or cut a cog-wheel." The Labour Exchange, however, insisted that the women must stay, and the factory admitted them. They were unskilled and the situation was critical. But they had grit. They learned their tasks. They formed a brigade and entered into a "bench competition" with the men. With care and conscientious work, with elimination of all waste, with no absences and no late arrivals, they succeeded, and at length surpassed the men. The foreman was bound to say at the end of the contest: "I have no complaint to make either of the quantity or quality of the women's work . . . the women stick deliberately to their work and are very careful with the plant."

The individual efficiency of women workers improved rapidly. We might have expected it. For in 1937, 41 per cent. of the total number of students in the workers' faculties were women. There are nearly 100,000 women engineers and technicians working today in Soviet industry.

There are just as many who have won honours and distinctions among women workers as amongst men. It was the women, Doussia and Maroussia Vinogradova, who led the way to increased production in the textile industry, and a Ukrainian woman farm worker, Maria Denchenko, who was the first to harvest 20 tons of sugar-beet per acre.

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But none of this achievement would have been possible had not the Soviet leaders been sensitive to the inevitable handicaps under which womanhood suffers, and resolute in their determination to remove them. Both Marx and Lenin had known poverty and seen the sufferings of their own women-folk, and an intimate connection links Lenin's intense compassion and complete and sympathetic understanding of a working woman's life, and the new charter for Soviet womanhood.

Maxim Gorky helps our understanding here with his stories of Lenin's personal life. Once, for instance, when Gorky, who was delicate and had come to London for a conference, saw Lenin, who came to visit him, feeling the bedding with a preoccupied air, he asked, "What are you doing?" "I'm just looking to see if the sheets are well aired . . ." replied Lenin, and added, seeing Gorky's perplexity: "You must take care of yourself."

A Russian worker in Hyde Park after meeting Lenin said of him: "For all I know there may be others in Europe as clever as he on the side of the workers, but I don't believe you will find anyone who attracts you so much right at the start."

During the famine of 1919, comrades, soldiers, and peasants from the provinces sent him food. He would open the parcels in his bleak flat, frown and grow embarrassed, and hasten to give them to sick comrades or those weak through lack of food. "They send things to me as though I were a lord. How can I prevent them from doing it? If you refuse and don't accept it, they are hurt. And everyone round me is hungry."

He was worried when food was not well cooked for those

who were working desperately hard at the Kremlin: "I know there is very little food to be got, and that bad—they must get a good cook there."

Caressing some children one day he said to Gorky: "These will have happier lives than we. They will not experience much that we did. There will not be so much cruelty in their lives." Then, looking into the distance, to the hills where the village nestled, he added pensively: "And yet, I don't envy them. Our generation achieved something of amazing significance for history. The cruelty which the conditions of our lives made necessary will be understood and vindicated. Everything will be understood, everything." Gorky adds, "He caressed the children gently, with a soft and tender touch".

It was this side of Lenin, then, that beyond all others saw the needs of women and the difficulties which hemmed them in. He had no sympathy whatsoever with a working man's oftentimes callous attitude to his wife. "Very few men, even among proletarians", he writes to Clara Zetkin, "think how much labour and weariness they could lighten for women, in fact save them altogether, if they would lend a hand in woman's work. No, that is incompatible with a man's 'rights and dignity', which require that he should enjoy his peace and comfort. A woman's domestic life is one in which she is sacrificed every day amidst a thousand petty details."

With this knowledge of Lenin in mind, examine, then, the difficulties of a woman's life. Women are handicapped by their physical make-up. They experience regular periods of physical and psychic depression. They suffer debility during pregnancy and become invalids during child-birth and afterwards. Held down by household duties and care of children, they lack time for learning, or even for maintenance of school standards of culture. If need arises they cannot support themselves and their family. They become dependent on charity as the alternative to neglecting their home. A working woman is powerless to take part in public administrative work or share her husband's social life.

The Soviet leaders understood these difficulties, and, led

by Lenin, set to work with determination to meet them wisely and in the general interests of the community.

Having given to every woman the right to work, with no doors closed against her, save in those occupations which involved unduly heavy physical toil, they laid down the principle that women workers must receive equal pay with men for equal work. The Soviet Union, alone amongst all the countries of the world, fulfils this principle rigidly, although its strict observance inevitably involves financial loss and creates vexatious problems in the factory. For women's physique and periodic illnesses introduce elements of dislocation and uncertainty into factory routine.

Again, marriage and motherhood introduce other obvious difficulties into the industrial life of women. And in order to make equality as complete as possible, full compensation must be given to a woman to enable her to fulfil, without handicap, her biological function of child-bearing. The Soviets have done two things here. They have encouraged motherhood and made it abundantly possible. Women employed in industry and public undertakings are granted adequate leave with full pay, both before and after confinement.

It has also been ensured that there is no single profession from which married women are barred. The pregnant woman, indeed, may not lift heavy weights, or work overtime. But her absence from work at the time of confinement in no way endangers her employment, and nursing mothers working at factories are given a pause every three hours to suckle their babies.

The Soviet Constitution shows that these problems have been met and weighed with minutest care and are amply provided for. And with production organized on the principle of service to the whole, and not profit to a section, it has been found possible to do under socialism the justice to womanhood which capitalism fails to do.

Women's work may be more costly than men's work, if the principles of equal pay and compensation for biological function are to be maintained, but it is none the less of value. For, on the purely material side, women's work has increased the number of producers without increasing the

number of consumers, and thus leaves ample margin for all necessary compensations; and on the spiritual side it has enriched and enlarged woman's experience, intelligence, and character.

As women need to be compensated against the handicaps of child-birth, they need further compensation or assistance in the matter of child-care and house-care. And an abundance of nurseries, crèches, milk-kitchens for infants, kindergartens and playgrounds for young children, together with communal dining-rooms at factories and elsewhere, and other devices are created to free womanhood from the drudgery of domestic duties.

This, again, is possible and advantageous under a socialist regime. For the crèche and the communal kitchen rationalize labour. Women's work in the house has obviously been more uneconomical than man's work in the factory. One large kitchen absorbs less labour than a score of smaller ones, and one large mechanized laundry than a hundred washing tubs. Communal kitchens and laundries and crèches and kindergartens are releasing women from drudgery, and placing them, with equal status as workers, side by side with men, and thus through their work, is enriching the whole community by increasing the volume of distributable goods.

The right to work, the right to equal pay, and release from the drudgery of the household have led to a widely expanding freedom and enrichment in the domestic life of women.

1. They have brought a new freedom to marry or to avoid marriage. Soviet women are more free than women elsewhere to marry or not to marry. Economic hindrances to marriage—or to early marriage, at any rate—are removed. The large number of Soviet young married women is in marked contrast to England's economically induced delay. Repeatedly did I discover that my local guide, whom I supposed to be a girl recently released from college, proved to be a married woman with children of her own of whom she was fond and proud. The practicability of early marriage has had an immense effect for good on public morality.

2. When married, a woman is free to continue her work or to undertake new work. In this matter man and woman stand on an absolute equality. The husband of one of my guides was earning his living as an editor, she as a guide. They had independent incomes, and each contributed to the family expenses. Sometimes she borrowed from him, sometimes he from her, and each was independent economically of the other.

3. A woman is free to have as many children as she likes. Economic barriers to large families are removed, and that probably accounts, with the new joy and zest for life and with the Russian woman's passion for children, for the fact that the birthrate in the Soviet Union outstrips all other European records.

In early days, when famine made children a burden, and when war weariness depressed husband and wife, women sought any possible release from the responsibilities of motherhood. Abortion was permitted by the Government, but only that it might be open and safe, rather than furtive and dangerous. Abortion was permitted as a temporary measure; it was not part of the communist programme, and it was abolished, save when it was necessary medically, in 1936 after prolonged public discussion.

Children are welcomed by the Government, and mothers with several children receive additional financial aid. A mother of six children receives at the birth of each additional child an annual grant of 2,000 rubles for five years, while a mother of ten children gets 5,000 rubles at the birth of each additional child, plus an annual grant of 3,000 rubles for four years.

There were 1,375,000 births in the first five months of 1937, a figure at the annual rate of increase almost equal to the whole of Finland's population.

4. A woman is free to divorce her husband, though strongly discouraged from doing so. Divorce is granted readily at the request of either party, but frequent divorce and remarriage is definitely condemned, and where there are children, both parties are compelled to shoulder their responsibilities. Divorce tends to decrease.

Great stress is laid upon the value of the family, and notwithstanding all that is done by the Government for the children, neither father nor mother are relieved of their parental responsibilities. The Soviet authorities, acting differently in this respect from other countries, encourage "paternity suits" and make non-payment of affiliation orders punishable under the criminal code. If a mother abandons her children, say after divorce or separation, the law may compel her, if she is earning an independent income, to pay alimony to her former husband. The legal protection of motherhood in Western European countries is still behind the U.S.S.R. in this, as in so many other ways.

In these circumstances complete cessation of prostitution is not remarkable, though wholly welcome.

Every discouragement is given to promiscuity. Lenin opposed it from the outset. The "new sexual life" which was advocated by some seemed to him to be abhorrent, a mere extension of the *bourgeois* brothel. To those who excused moral laxity on the ground that the satisfaction of the instincts was as simple and unimportant as "the drinking of a glass of water", he replied, "will a normal person under normal conditions lie down in the dirt and drink from a puddle? Or even from a glass with a rim greasy from many lips?"

The myth of the "socialization of women" in the Soviet Union was a clever device, without a basis in fact, used abroad to embitter feeling against the new Soviet order. My friends in Kiev were very bitter about this charge, which had been represented to the country people in earlier years as the "all-under-the-same-blanket" theory.

As a matter of fact sex plays a comparatively small part in Soviet Russia in general, and everything lascivious or degenerate has been expunged from Soviet public life. Co-education produces a healthy atmosphere. The girls are strong and physically able to look after themselves. "Petting parties" are unknown. Healthy activity and an all-absorbing common goal, together with the freedom and independence of women, have thrust sex back into its more natural and normal and less prominent place. The

whole tendency is towards what has been called a "rehabilitation" of monogamy: that ancient and well-tried principle which elsewhere threatens to burst a too-rigid framework, tends here to reform itself in a new and living way. Similar interest and common endeavour, which can last as long as life and are made possible by the new freedom of women, replace the brief attraction of a pretty face or comely form, which are quick in the passing. And in the Soviet Union, as elsewhere, the child is the cement which binds the family together.

5. Women are free to take their share in the administration of the common life. The Supreme Soviet of the U.S.S.R., the highest legislative organ of the Soviet Union, includes 189 women among its members: collective farm workers, tractor drivers, or school teachers, amongst many more. No parliamentary body in the world can show the same proportion. And women here, and in all other administrative bodies, enjoy exactly the same rights as men, granted willingly by the Soviet authorities, and thereafter wrested from backward husbands and backward communities. Peasants especially had protested against "petticoat authority". The husband who shouted after his wife, "I'll give you a good hiding if you keep running off to meetings", only said what many felt, and when he gave the beating, he only did what many did. Women had a long struggle at first in their own backward localities to realize their new liberty.

Today, however, women enjoy not only the same facilities for education and training as men, but hold the same kind of responsible posts in the administrative and social services. It is impossible to think of a People's Court of Justice apart from its women members, who impart to it not only freedom from pomp, but also just that touch of womanliness, and even motherliness, which Western courts still lack.

Soviet women in public life regard themselves as instruments for the service of the community. They show in their sphere that disinterestedness and sincerity which, I have often observed, distinguish the service, in social and religious life, of their English sisters. In the Soviet Union

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this spirit opens, as has been said, a new chapter in the history of womanhood.

6. Women are free to enter cultural and intellectual life. As we have seen, they share equal opportunities for education both in school and colleges. At work, hours of labour are short. Work becomes lighter as machinery grows in efficiency. Pay is high. Domestic drudgery is minimized. Children are tended. The Soviet Union has offered women a new chance for cultural pursuits, and they have seized it. It is women who help to swell to such astronomical figures that demand for literature which promises to make the Soviet Union the most literate country in the world.

Few escape the contagion. I shall not soon forget the group of old women I suddenly came across in Odessa struggling eagerly with pothooks, learning late in life how to read and write. It is calculated that there is one learner for every two inhabitants in the U.S.S.R.

Soviet women's journals receiving correspondence from working women, peasant women and women workers of all ages, in all parts of the Soviet Union, are revealing the inner growth and originality of the new Soviet women. Poems, stories, sketches, pour in. A new type of folk poetry is developing, rather American in style, with the realism and speed of the machine age.

But also an old style, the original Russian epic style, is drawn out of its long obscurity and cherished in a proper spirit. Old Marya Krivopolyenova, all of a piece with her native countryside in the neighbourhood of Archangel, who was discovered at the age of seventy-two tramping from village to village singing her unique national poems, has now been brought to light and captures the city crowds by her consummate natural art. The speech of Russian folk-lore is being committed to writing by hundreds of women.

In literature women take their place. In the arts, too. It has been noticed, in sculpture, that women's work tends to be more forceful, more robust, than men's; the men's statues tend to be life-size or less, and generally in white marble; the women's tend to more than life size, and are

carved often from lovely native woods, birch, oak, or lime.

It is said that the Soviet order has destroyed the homes of Russia. If by "destruction of the home" is meant moral infidelity and looseness of living, the charge is false. The moral atmosphere has cleared.

If the economic home is meant, the charge is true. For by the economic home we mean the home where the husband works at the factory and earns money to pay the family bills, whilst the wife does the household drudgery, dependent economically on her husband, and debarred from social and political life. In English homes of the upper class the wife is still economically dependent upon her husband, but her husband's larger income frees her from drudgery: cooks, housemaids, and parlour-maids relieve her of one half of the household tasks, nurses and governesses the other half.

The Soviet Union has smashed up this old home economy, and few will mourn its departure.

The woman is no longer economically dependent on her husband. He cannot prevent her working, where paid work makes her economically independent of him, while the crèche and kindergarten make her largely independent of former household cares.

The economic home has lost. But the family has gained. The new economic freedom gives to the woman ampler leisure to enjoy family life with husband and children. She mingles in social and political activities. She fulfils skilled tasks. She is the intellectual companion of her husband, with an intelligent interest in his work. She guides and directs her children from the new level of the experienced citizen. She has, in a word, gained that measure of independence of the kitchen and the nursery which the wealthy classes always endeavour to achieve here. But she has gained far more than that. She has gained a highly skilled, purposeful life, with a creative purpose at the centre of it, which she can share with husband and children and neighbours. No longer is it her function merely to cook and clean, which is the lot of nine out of ten mothers in capitalist countries; nor is it

her function merely to enjoy a measure of freedom from these duties; she is building up socialism and laying the foundations of a new world.

The good citizen rather than the good housekeeper is the type of woman deemed most attractive in the modern Soviet State. And in the long run this will produce the good wife and the good mother. The effect on the husband and children is salutary. A man is the better for a companion who challenges his ability, rather than a house-wife who comforts him in his shortcomings.

A Russian husband finds it harder to cut a great figure before his wife unless he is a great figure in reality. She is a spur to stimulate him and an example to call out his best. She fulfils the function of the good comrade and companion.

If, then, the economic home has suffered, the family as a centre of affection, culture, and comradeship has gained.

5. SOVIET WOMEN IN THE EAST

THE SOVIET East has witnessed a burst of missionary enthusiasm. It emerges from the slumber of centuries into an unparalleled newness of life.

The charter of Soviet womanhood was from the first planned for the whole of the East as well as the West; for Esquimos, for Chuckchees, and for Koriaks in the north, or for Armenians, Georgians, and Uzbeks in the south. Nearly two hundred races, ranging from wild nomads to accomplished citizens, now enjoy economic and social freedom, and share equality of political rights. These things were purchased often at great cost, the conservative East resisting strenuously all efforts at enfranchisement, and resisting with exceptional bitterness enfranchisement of womanhood.

Eastern women had sunk into unbelievable degradation, and finally were bound fast by class rapacity and masculine dominance. Now, at a single bound and in a single generation, these women have passed from a semi-animal existence into the freedom of equal citizenship in a progressive community. When will the West appreciate the significance of this great thing?

In Moscow, with its groups of two hundred nationalities and in its Soviet Chamber of Nationalities, we see as in a microcosm a picture of the extent and range of the Union. And from Moscow has gone forth the message of the woman's charter of liberty.

Not always, it would seem, have Eastern women been in the state of abject subjection to men in which the Tsarist Government found and left them. Evidence exists in many quarters that women in the East were once the dominant sex, that society was matriarchal rather than patriarchal: women had fought as warriors for Jenghis Khan; Mongols have possessed female Khans; Georgians say sisters and brothers, rather than brothers and sisters, and call their father, mama.

Matriarchy died hundreds of years ago, and when Islam and the Turk overran the major part of what is now the

Soviet East—Turkmen, Uzbeks, Kirghiz, and Kazakhs are all of Turkish origin and mainly of the Mohammedan faith—every vestige of matriarchal rule and womanly freedom had departed. Marriage became a commercial transaction; early marriage and child-marriage followed as a natural consequence. Women became the mere objects of men's lust, and, as is common in such circumstances, excessive sensuality was attributed to them. Women are held to be essentially impure. They must be kept in isolation and hidden behind the veil. Total deprivation of women's rights may be contrary to the letter of the Koran; it has become the practice of Mohammedan lands.

The life of women became incredibly hard. They were treated as less than human. No grief must be shown when a woman dies, and no pity for her pains in childbirth. A woman in certain Georgian mountain clans is condemned to spend two weeks before her confinement in solitude in a hut of slate. Dogs are kennelled better. Where, in winter time, animals are brought from the stable to the living-hut to give birth to their young, women are sent from living-hut to stable. Kalmucks place a woman, when in labour, on a dunghill. In the far North a woman gives birth to her children in an unclean, icy tent, aided by no human hands.

Girl-children of the Eastern world were strangers to the joys of girlhood. Uzbek and Tadjik girls were married at the age of eight or nine.

The wife was a chattel in the East, a bit of man's property, legally acquired by marriage, a vital necessity as prime worker in house and farm, valuable for that purpose, but treated with contempt. At Turkman weddings the bridegroom received a whip. At Askabad the husband required his wife, on the first night of marriage, to remove his boots, and made the task as difficult as possible. In Uzbekistan the woman slept on the bare floor, the man on rugs on the couch, kicking his wife awake without arising when desiring tea in the morning.

Women did all the work of field and house in Uzbekistan, Tadjikistan, and Turkmenistan—a relic of days when men fought and women worked.

In Uzbekistan and Tadjikistan the veil, behind which women were commanded to hide themselves from the world, had degenerated into an appalling horsehair net or cage; black, hot, and foul, shutting the wearer off effectually from the world of men and from the light of the sun.

The Tsarist Government brought no relief to womanhood, rather it added the fresh indignity of national subjugation. Universities and secondary schools in the native tongue were strictly prohibited. National antipathies were fanned into national hate.

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With one stroke of the pen the Soviet Government swept away all legal hindrance to Eastern women's liberation. Lenin proclaimed political, economic, and cultural liberty, and began at once the task of translating into act the freedom which existed on the Statute Book.

It was an uphill fight all along the line, especially in Central Asia; and not until 1925, when the scattered peoples were finally gathered into the Soviet Union, did liberty for women begin to take concrete form. Enslaved in their own households, Eastern women had long to wait for their release, and when it came it was often purchased at great cost and suffering. Tsainet Khesmitova, when almost a child, left her aged husband and fled to the Reds. The man procured her capture, beat her black and blue, cut out her tongue, and buried her, still living, up to the head in the ground. Found by the Reds, she was rescued. Today she lives, appallingly crippled and mutilated, in a Moscow hospital. "When I am in Moscow and visit her", said the woman President of the City Soviet of Tashkent, "I am ill for at least three days afterwards."

The Soviet Government proceeded to prohibit compulsory marriage, child marriage, marriage by capture, and the sale of women, fixing the age of consent in the East at sixteen, a half-way house to the eighteen years which is legal in Soviet Russia.

Propaganda amongst Eastern women was carried on by Russian women with the utmost difficulty and with the aid of new methods: women's clubs, Red Corners, Red

Boats, Red Yurtas or tents, equipped often with electric light and wireless sets, and open for women alone. Such institutes acted as elementary schools for the women's movement. They assisted with legal advice, and gradually brought women into the stream of industrial and cultural activity.

This selfless work of the Russian women missionaries, learning new languages, living amidst miserable and insanitary conditions, risking their lives daily through poisoned meals or direct attack, and even wearing the vile *paranja* or horsehair veil in order that eventually the native women might cast them off, makes marvellous reading. A book like Fannina Halle's "Women in the Soviet East" is singularly akin to the tales of missionary doctors and engineering pioneers with which we were familiar in our youth, but with one great difference. English missionaries struggled on with scant assistance, and often tacit opposition, from their country as a whole. Soviet Russian women had their country's goodwill from the first, and all its resources solidly at their back.

Side by side with the cultural penetration of women missionaries was ranged the mass cultural attack upon the people as a whole, which sent vast numbers of men, women, and students of both sexes as doctors, lawyers, locksmiths, musicians, teachers, to pave the way for further changes.

Prejudices slowly collapsed. Women learn now to clean their dwellings, to use soap, to plant vegetables, to tend children. Thirty-eight primitive peoples were provided with new alphabets, for of the various tribes in Northern Asia not one had a written language.

A dramatic moment came with a mass rejection of the *paranja* on the International Women's Day of March 8th, 1928. Fannina Halle thus describes it :

" On that day . . . tens of thousands of women, huddled in *paranjas* and *chachvans* poured like a menacing avalanche through the narrow choked streets, squares and bazaars of the ancient Central Asian cities. . . . Above this silent gloomy approaching mass, still without

faces or eyes, a sea of red flags floated high in the air . . . and like a blossoming red flower bed in the midst of a barren, weedy field, a group of women with uncovered faces and red kerchiefs on their heads, contrasted with the strange procession, they marched past with more or less firm tread; these were the few who had previously had the courage to break with their past, and no longer looked upon the blue sky through a black grating.

“ Amidst strains of music the vast multitude, including a number of men and children, gathered round the Lenin monument, which was likewise decked with red banners and native carpets, and the women waited breathlessly for what was to come. Thundering, stinging words, but words that were new, unaccustomed and inspiriting, that moved the bearers hearts so deeply that they called forth a real frenzy of enthusiasm. . . . All the bands struck up the Internationale. . . . The real proceedings began. . . . They [the *paranjas*] were flung aloft into the quivering air, timidly at first, but then with ever wilder and more frenzied speed, these symbols of slavery that the women cast off, *paranjas*, *chachvans* and *chadras*. They were piled in rapidly growing heaps, drenched with paraffin, and soon the dark clouds of smoke from the burning common abjuration of a thousand year old convention, now become unbearable, flared up into the bright sky of the Spring day. . . .”

Today there is not a single veiled woman in Bukhara, though there has in the meantime been many a lapse from the great demonstration of 1928.

Not all the opposition of men or priests have been able to hold the women back. Young girls of twelve, forced by their fathers to put on the *paranja* and marry against their will men they had never seen before, would escape for refuge to the Women’s Club and, joined by many more, set up effectual resistance.

The old tales that the communes possessed an immense blanket, 50 yards long, under which all the members of the commune were to sleep, men and women promiscuously no longer gained credence; nor the charge that babies

were sent from the crèches to Russia or China to be boiled down for soap or eaten.

Women were at last awake and on the march. The tide of enlightenment arises; the use of soap, of washable underclothes, of a lamp, of a bed—little enough to us, vastly significant to those always denied the slightest luxury—led on to greater things: to the right of divorce, and the right to chose their husbands freely.

Women in many places lead the men, who now pay the penalty for flinging all the tasks on the women. The charge “ You say that the Soviet Government has done a lot for us women. But it hasn’t changed the men yet! ” has in it a proper touch of irony.

Women leap from the Middle Ages to the twentieth century at a bound. A child married at twelve to a man she had never seen before, compelled to wash the feet of all the men in his family and all male guests, not permitted to sit in his presence, living on scraps and cold food, now studies at Kuty, the University for Labouring East in Moscow, side by side with her husband. Beside her, again, studied another girl whose mother never took off her clothes or shoes, slept all her life on the bare floor, and never dared to call her husband by his name.

The wife who was a mere object of lust or an instrument to breed her husband’s children, now greets him as comrade. Women enter industry, become economically independent, mount to a social equality with men, and begin to play their part in politics. Women hitherto silent now grow eloquent; women who bent low in toil now soar in aeroplanes and launch forth in parachutes. Tashkent, the largest and most important city in Central Asia, boasts of a President who a few years before was an illiterate servant girl hidden beneath a *paranja*. Swiftly the past fades before the glory of the present. A six-year-old daughter asks her mother, the head of the Teachers’ College at Bukhara, “ What is a *paranja*? ”

6. THE DEMOCRACY OF THE WORKSHOP

THE SOVIET worker possesses many advantages unknown in capitalist lands. He is guaranteed paid work. He is guaranteed leisure. He is freed from the curse of unemployment. His working hours are reduced to seven a day, and still further reduced to six if his work lies in mines or in dangerous trades. He is assured of holidays with pay. His wife can work if she desires it, and receives equal wage with men for equal work. His children are cared for in crèche and school. In case of accident he receives compensation, and in case of sickness financial assistance and medical help. Technical institutes and universities await his children free of charge, and in old age he retires on a generous pension.

In addition to all this, and crowning it, he enjoys a new freedom in the workshop, where the mass of workers spend the major part of their lives and where freedom is most highly valued and most hard to secure.

The democracy of the workshop is the bulwark of Soviet liberty. Its nature and value have been largely overlooked. The problems of freedom, liberty, and democracy are not the same for the middle class and the workers. The middle class, freed from the discipline and tyranny and restrictions of the workshop, think of freedom in political terms, freedom to vote for what policy they desire; when they think of freedom in economic terms, it is freedom to use their economic power as they choose: a freedom which quickly runs to licence.

Workers, forced by economic necessity to submit to a discipline which they play no part in shaping, inevitably suffer from a sense of degradation and an irritation which stunts their lives and warps their outlook. Discipline imposed from above and involved in an operation in which the worker is in no sense a partner acts as a clamp upon the mind. It thwarts initiative. Resentment smoulders beneath the surface, only awaiting some new cause of

grievance to burst into a flame. A real sense of injustice, always present, even if only sub-consciously, leads to a deep-rooted hostility and suspicion, erecting barriers between the classes and creating the "two nations" within the community of which Disraeli speaks. In its ultimate manifestation this leads to social upheaval and revolution.

A division of purpose and aim amongst the human elements in a capitalist factory is the chief cause of friction and strife. This difference of aim is always present, sometimes more, sometimes less. It is, in fact, a normal and accepted feature of industrial life. The aim of the capitalist is profits. Costs of production affect profits. To increase profits costs must be reduced. Labour wages are a cost of production. Labour wages, therefore, must be kept low, and if possible reduced. On the other hand, the standard of living is vital to the worker. He lives on the brink of want. He lacks reserves. Wages and wage increases form the sole means of maintaining or advancing his standard of living. Therefore wage maintenance and wage advance are of primary importance. In other words, the aim of the human factors of production—the capitalist and the worker—are at variance.

Naturally, discontent is never far away, and organizations, such as Trade Unions, are created to focus this dissatisfaction and provide partial solutions. The strength of Trade Unions varies, and depends upon the unity, discipline, and knowledge of the workers and their skill in choosing proper leaders. Their aim is to obtain what measure of justice is possible, not by reason or logic, but by threat of force. The strike is the *ultima ratio* of Trade Unionism. Workers confront owners and managers as antagonists. Both stand ready for action, as armies on the eve of battle, suspicious of every move. Peace is never real. Armed truce is the only hope. The wells of production are poisoned at this source.

So much is this the case that it is impossible for trade unionists and non-trade unionists alike to realize that under another and different social and economic system, where these root contradictions are eliminated, is it possible for Trade Unions to have other and different functions and to play a

constructive role in social activity. Thus Sir Walter Citrine can write:

"It is too much to assume a complete identity of interest between the director and the workers. The director was concerned with efficiency and output, and the worker with the amount he could earn, and the conditions under which it was earned. . . . Liberty of association and the right to strike are the essential features of legitimate trade unionism."

The Soviet factory and the Soviet economic system start off with this major contradiction eliminated. A common ultimate purpose inspires all Soviet workers, be they foremen, managers, directors, or artisans. The general benefit of the whole community, with a richer and fuller life for each individual, is the common and conscious aim of every industrial worker. Exploitation of man by man is entirely abolished. Neither worker nor management is confronted by an "enemy", and from this new foundation of mutual interest it is possible to build up a new attitude to work and labour. Co-operation replaces strife. Directors, managers, foremen, and workers are all part of a common whole, working for one common purpose.

Differences, naturally, exist between the several classes of workers: wide differences of function, due to wide differences of knowledge, experience, and aptitude and wide difference of wage according to the value of the work done. What has gone—and this is a matter of paramount importance—is a difference of class or caste. There is no closed hierarchy in the Soviet Union. Anyone with the requisite knowledge, ability, and energy can find a niche suited to his powers. And every encouragement, materially and morally, is given to individuals to increase their knowledge and improve their qualifications in order to perform work of greater importance demanding higher qualifications.

It is this effort to improve the human element that makes Soviet factories akin to English schools and separates them widely from factories in capitalist industry. In English schools the child is surrounded by men and women who seek

his advancement and bend themselves to help him. Soviet factories exhibit the same eagerness to make men as well as things; to educate the individual worker, to seek his advancement, to fit and encourage him to equip himself progressively for higher tasks. In England we are told that there is always room at the top. That is much more true of the Soviet Union, and still more true is it to say that the Soviet people alone and wholeheartedly seek to equip every man or woman, boy or girl, who possesses will and ability for posts of advancing importance. That is natural and practicable where exploitation of man by man is outlawed and where it is to the interest of the whole that the potentialities of all its members should reach fulfilment. Life contains new purpose and interest and possibility for all. The stagnation of a class society with its closed and guarded areas has gone.

If freedom means absence of restraint, and if the sense of restraint comes with the recognition that a man is prevented from doing what he intends to do, then a Soviet factory possesses and cultivates the roots of real freedom, because all intend to reach a common goal with every possible restraint removed.

At the same time modern methods of production enforce differences of function, and it is never easy for large numbers of workers with widely different functions to pull together, even if the major contradictions have all been removed. The man who designs may expect too much of the available machinery and materials, the manager too much of the artisans, the artisans too much of the labourers. How shall day-to-day differences of opinion be met and grievances ventilated? In particular, in what way can those in lower categories of labour criticize and advise those who exercise advisory and managerial functions?

These are crucial and practical questions, and the Soviet Union has not been slow in seeking solutions. In the Soviet factory there are branches of three public organizations which serve the purpose of stimulus, advice, or correction: the Trade Union, the Communist Party cell, and the Young Communist League.

The Trade Union, though similar in name to its British

counterpart, differs widely in function. Its scope is wider. Like an English Trade Union, it airs individual grievances and injustices, but this is a small part of its work, since grievances can find other and speedier outlets. It has a constructive rather than a fighting purpose.

The Soviet Trade Union is primarily concerned with that aspect of factory life which makes it a workshop for the production of men. It shares, in ever-increasing degree, in the administration of the cultural and social funds of the factory. How radically a Soviet Trade Union differs from a Trade Union in England, and how radically every spark of antagonistic interests has gone, are seen in the fact that the Soviet Trade Union administers the Government's social insurance funds. The Soviet Trade Union builds and administers rest homes and sanatoriums; factory clubs and Palaces of Culture; crèches and kindergartens. It undertakes and stimulates workers' education; and beside administering his sick and benefit funds, it stimulates the general social activity and consciousness of the worker. Its function is positive and educative.

The individual worker participates in the activities of his Trade Union by the common, humdrum, democratic means of meetings, election of committee and officers by secret ballot, by criticism of management through the Union representative, and by the wall newspaper, upon which he may and does air his grievances and make his suggestions, and which is a common feature in every workshop and public institution.

More important even than the Trade Union is the Party, which is the tangible means by which, primarily, workers feel and exercise their ownership of industry. The Party exercises general supervision over the whole collective enterprise and maintains its standard. The Party is the inspiring, stimulating, regulating spirit of any enterprise. The Party is composed of the most convinced, the most ardent, and the most self-sacrificing spirits in the Union, or in any part of it. The Party has many affinities—in its

faith and discipline and unity and singleness of purpose—with the great religious orders of Christianity or Buddhism.

The Party will be better understood if examined in the light of its origin. "The All-Union Communist Party (Bolsheviks)" is its full title. In 1903 the Second Congress of the Russian Social Democrat Labour Party, held in London, split into two factions, one led by Lenin. In the final split Lenin's adherents received a majority, and hence were known by the name of Bolsheviks, which means majority: the minority were appropriately named Mensheviks. The party which fought for and won the adoption of its programme in 1903 still leads the people of the U.S.S.R. in 1939.

Through all the intervening years the Party has steered an undeviating course: Colonel Gromov, at a reception in Los Angelos after the second record-breaking flight from Moscow across the North Pole to the U.S.A., said: "During the whole of the time we flew along a straight line, straight like the line of the Party."

These words of the distinguished airman, "straight, like the line of the Party", express what the Party has done for the Soviet people. It is the Party which from the first had faith in the masses. It is the Party that called upon its members to fight for the socialist programme, regardless of danger. It is the Party which attracts men of strength, devotion, and courage, and whose membership of some two million souls stands firmly established in the affection and confidence of the broad millions of the people.

The Communist Party has a clearly defined constitutional position. Article 126 of the new Soviet Constitution, dealing with the right of the citizen to organize, contains these words:

"The most active and politically conscious citizens in the ranks of the working class and other strata of the toilers unite in the Communist Party of the U.S.S.R. which is the vanguard of the toilers in their struggle to strengthen and develop the socialist system and which represents the leading core of all organisations of the toilers, both public and state."

Branches or cells of this Communist Party are found in all factories, and complete consultation takes place between the Party and the management on all matters affecting the general direction of the factory and the well-being of the workers.

So unfamiliar is such action, and yet so essential to an understanding of true democracy is this democracy workshop, that it needs fuller explanation, and this can best be shown in the words of Victor Martov, Secretary of the Party Committee at the Red Proletarian Machine-Tool Plant in Moscow. He describes the relationship between the Party and the director of the plant as follows:—

“ The director of the plant has sole authority in managing it. His orders are indisputably carried out. ‘ Conflicts ’ on production matters are very rare: Firstly, because Peter Taranichev, prior to his appointment as director, had worked many years at the Red Proletarian, starting as turner and later in managerial posts; he knows production thoroughly and directs the work of the shops excellently. Secondly, and this is no less important, whenever he has any doubts he comes to the Party committee for counsel. He discusses with us all cardinal problems of production, including questions of reconstruction or reorganization of various shops, drafting the plan of output, the financial plan and many other related problems.

“ No conflicts, in the full sense of the word, are possible since we are all concerned with the same thing: matters of production and the well-being of the people working at the plant.

“ Our task is not to issue orders to the director but to help him. When it seems to us that the director acts incorrectly, we invite him to the Party committee, outline our viewpoint and listen to his arguments in support of his orders.

“ We had the following case recently. On the request of the workers we decided to open a new club: several thousand rubles were needed to equip it. The director

refused the money, claiming that he had no available funds. We considered the club of utmost importance, for it is not only a place for rest and entertainment, but also a huge school for the acquirement of considerable political and general knowledge.

“ We invited the director to the Party committee and had a heart-to-heart talk with him. We reminded him that production and business matters should not blot out from his view the necessity for political and cultural activity among the workers, that he should learn to combine both. The director’s plea that there were no funds for the purpose was valid, but we advised him to apply for the money to the Central Administration of the Machine-Tool Industry. He complied with our suggestion and received the necessary funds.

“ The same director, however, can transfer any Communist, even a member of the Party committee, to other production work or dismiss him if he does not cope with his job. He can protest against the decision of the Party committee, should we, for example, call a meeting during working hours, or, going over the head of the management, interfere in production matters. Such action of the director would be lawful, for his is the sole authority; he is responsible to the Government for the enterprise intrusted to his charge.”

At Party and other meetings the workers of a particular shop in a factory will not hesitate to criticize or advise the shop superintendent or the foreman whom they meet there on neutral ground. Such procedure, unheard of in this country, has a double value. First, it assists production, inasmuch as the criticisms are frequently valuable contributions to workshop methods. Secondly, it enables the workman to remove the inner contradictions and private grousing which have so blunting and deadening an effect in an English factory. Criticism of this open nature is of the essence of democracy: the worker is free to think and express his thought at the focal point of his life’s activity. He can exercise direct influence over the organization that more than any other dominates his life.

We hear many proud boasts concerning freedom of our English democracy, and, it is assuredly a valuable thing, and not to be regarded lightly. Indeed, it is a priceless possession and one to be guarded jealously. But it has its limitations, and the democracy of a Soviet factory is in many ways more important to the average worker than voting for a particular political party once in every five years. Freedom to criticize the boss face to face, instead of behind his back in the local "pub", is of inestimable value, and is possible only because the boss and the worker are both part proprietors of an industry which belongs to all and is run for the benefit of each. Both realize that improved production is beneficial to all, themselves included, and that is possible only when the workers are contented and eager and the methods correct.

The Party officials and committee are chosen, as in the case of the Trade Unions, in the normal democratic manner, by secret ballot and after the fullest and most open criticism and examination of the candidate's career and record; it being of obvious importance to all that the wisest and most sensible men should be chosen to guide common action for the common good.

Criticism is, perhaps, less resented in the Soviet Union than anywhere else. It is accepted as normal and proper. And its effect upon discipline is beneficial. Men "let off steam" by criticism and also get a hearing for fresh suggestions. Initiative grows. The foreman or boss who can be talked to in a completely frank way after work hours is no longer a tyrant to be outwitted. The discipline which the worker helps to shape is accepted without a struggle and breeds no ugly resentments.

The worker is drawn through these various agencies right into the life of the plant. It is "his" plant. He sees it in relation to the whole purpose of life. He appreciates its problems and helps to solve them. He integrates his own life with the life of the whole Soviet organism. The factory is a place of education, not of exhibition; a place of team-work and achievement, not of grievance and bitterness. Work becomes a pride and pleasure. Drudgery loses its sting in the light of purpose, and the

desire to remove unpleasant and arduous work becomes a call to creative possibilities.

The inner discipline which began in the crèche and grew with the growth of years reaches its climax in the life of the factory, where unity of purpose in the general life of the community is fully realized and becomes creative in the individual mind.

BOOK V

THE PLAN AND THE PEOPLES

- 1 The Equality of Races
- 2 The Golden Ukraine
- 3 Awakened Asia
- 4 Dawn in the East
 - (i) Yakutia and the Arctic North
 - (ii) Sakhalin
- 5 Escape from the Ghetto

I. THE EQUALITY OF RACES

“THE ENTIRE Orient regards our Union as an experimental field. Either we decide correctly the national question within the framework of this Union; either we establish really fraternal relations within this Union, real collaboration between the peoples within this Union—and then the entire Orient will see that in our federation it possesses a banner of liberation, a vanguard in whose footsteps it should walk, and this will be the beginning of the collapse of world imperialism. Or we, the entire federation, commit a mistake here, undermine the confidence of the formerly oppressed peoples in the proletariat of Russia, shear the Union of its power to attract the Orient which it now enjoys, in which event imperialism will gain and we shall lose. This constitutes the international significance of the national question.”

Joseph Stalin, the man who uttered these words at the XII Congress of the Russian Communist Party in 1923, had known in his own person the sorrows of oppressed peoples. Born at Gori, in Georgia, and trained in a college for young priests, he had chafed alike at the Tsarist efforts to “russify” his people nationally, and at capitalist efforts to enslave them economically.

In January, 1902, he organized the first strike of the Mantashev workers in Batum. In March of the same year he organized great demonstrations of workers. A procession of 6,000 was fired on by the military, and 500 demonstrators were deported. Stalin was sent to Siberia. The iron entered into his soul. From henceforth he devoted his life to the liberation of the common people nationally and economically.

After ten years spent in eluding police spies he was once again in their hands, and on Easter Sunday, 1909, was forced with his companions to “run the gauntlet”. Many collapsed under the ordeal. With head erect and a book in his hand, Stalin defiantly strode between two rows of

soldiers while their rifle-butts rained blows on his back and shoulders.

Stalin vanished from Siberia. Whilst the police searched for him, he was playing chess with Lenin across the borders. Lenin writes to Gorky: "Here, with us, is a wonderful young Georgian. He has collected all the Austrian and other material on the question of nationalities and has settled down to prepare a treatise on the subject."

This treatise became the foundation of the Soviet national policy, and Stalin naturally became the first Commissar of Nationalities in the Soviet Government. Through his own sufferings, Stalin, the man who had suffered, opened a new door for the nations, and oppressed peoples of all lands see in him their champion.

Every great State and every great empire has minority problems which present apparently insuperable difficulties. Each one attacks the problem in its own way: by frontier revision, by assimilation, by exchange, or, as in Germany, by attempted extermination. None succeeds. Tales of sordid and pitiful struggles, of enslavement of whole peoples, seep across frontiers to make our blood run cold. No tales were more terrible than the tales of Tsarist suppressions.

The Russian Empire of pre-revolution days has not inaptly been called "the prison of the peoples". Every species of oppression was practised. National languages were disallowed, education suppressed, industrial development thwarted. Uzbekistan, Kazakstan, Bashkiria, Armenia, Georgia, were robbed of their raw materials, grown or extracted in the crudest and most wasteful fashion. Native industries and native working classes were regarded as dangers to Russian autonomy.

Tsarist Russia had many weapons in its armoury; two of outstanding efficiency and popularity with the dominating classes. Tsarism deliberately cultivated the feudal-patriarchal system, and found traitors, such as the Emir of Bukhara, more attached to their class privileges than to national pride, as their ready tools. The people were driven down to a state of feudal ignorance and slavery. Still less scrupulous was the method of sowing national

discord and enmity among the peoples themselves by inciting one nationality against another as a means of crippling resistance and diverting attention from the real enemy. To achieve this end more readily, the boundary lines of the artificial provinces were arbitrarily fixed in order to cut national groups into two or more parts. Thus the frontier line divided the Kirghiz into two groups, some of whom found themselves in the Turkestan province and some in the province of the steppes, and both under different governors-general. The Uzbeks were separated in a similar manner, one section thrown into the same province as the Turcomans. Nationalities were purposely divided and purposely joined up with hostile peoples to foment enmity and oppression and inter-tribal strife.

In other areas pogroms, on a wide scale, were organized.

Joseph Stalin swept the whole of this aside and taught a new way with minorities. His actions in this respect constitute one of his unique contributions to the new socialist experiment. With Lenin and his fellow-communists he accepted the common economic basis of socialist economic life; the abolition of exploitation, profit-making, and competition. He perceived, however, that it was possible that national cultural ideals can co-exist side by side within a single economic order and within a single political State in which the same economic ideal was held.

There was nothing, to put it concretely, to prevent workmen of Georgia, who accepted the socialist thesis of a non-exploiting, non-profit-making society, from living under the same widespread economic ideal with workmen of Belorussia in the extreme west, Sakhalin island in the extreme east, or Uzbek in the centre; and yet each of them freely thinking, speaking, and writing in their own language; and possessed of liberty to develop their own culture and institutions. It is no more necessary to force national minorities to accept the national cultural ideal of the majority within the same economic system than it is necessary for an Indian to divest himself of Indian national culture when he plays cricket with an English team. One thing only is required of an Indian cricketer: he must observe the rules of cricket. And one thing only is required of Georgian,

Belorussian, or Uzbek: he must observe the economic law of socialism.

Nationality is a personal attribute; like religion in England, it may be enjoyed to the full, but not imposed on others.

The economic interest of those who believe in production inspired by service and not profit, and live under a Plan which considers the needs of each and all upon an equalitarian basis, is the same whatever the nationality may be. The State is based upon that economic interest and political plan; not upon the nationality of any part predominant in numbers.

Putting it concretely again, European Russia possessed the largest population and was the vital centre of industrial life when the Soviets took control. No other nationality in the old empire approached it in number or industrial importance. Other units were small in population, backward in culture, and primitive in industry. The large Russian unit had its own language, its own customs, its own culture. The smaller units had theirs. But there was no reason, in the nature of things, why Russia should force its language and culture on Ukrainians or Uzbeks, or even on Karelians and other extremely small national groups.

Large units and small units had interests that were common and interests that were not common. The Ukrainian workman had a common interest with workmen of Russia and Belorussia, of Uzbekistan, Kazakstan, or Armenia, to live in freedom from economic exploitation, endowed with all the benefits of an industry planned for the service of all, a common interest in defence from external attack, in the development of the means of transit and postal communication. He had at the same time a peculiar interest in his own language and literature and national customs. It was as unreasonable as it was unjust to rob him of these, and Russia itself would in no wise benefit were it done.

Hence, the new Soviet Union was designed to possess a common economic system, in the benefits of which all could share, and to the conduct of which all could contribute. But each national minority was to be as free to

exercise its historic culture, its language, literature, and traditions, its theatre, art, folksong, and folk-dance, as you and I in England are free to speak with an Oxford accent or in the Cockney dialect, or to practise religion in its Catholic or Protestant form. Within the economic whole, and within the political order which maintained it, every national group was to be nationally free.

Today all this seems as obviously sensible as it is undeniably successful. For already it is yielding its fruit in a rich and varied culture. But in European and Asiatic Russia it meant a complete reversal of the whole Tsarist policy, and serves as a model to the world which has never before seen it carried out in practice.

Stalin brought the matter to a head when in 1918 he urged the granting of federal autonomy to regions marked off by national characteristics. It was done.

The general principle then enunciated has been developed in many directions. Its application involved many problems. Not least was the nature of the representation of the various nationalities upon the General Council of the whole Union. Russia, for example, was overwhelmingly great in numbers and importance. Should Russian representation preponderate? To do so would seem natural. But it would give to the Russian Republic a weight denied to the other members of the Union and endanger the principle of national equality. Hence it was resolved, and rightly resolved, that the basis of the new Constitution should be absolute equality of all nationalities, due representation in the central organs of all national republics and regions; with a reasonably wide administrative, cultural, and economic autonomy to each Republic, whose organs of administration should be recruited locally, and endowed with the right to use their own language.

The central authorities deliberately used their power to establish, not a Russian national supremacy, but a genuinely non-national State. It was a triumph of principle.

The establishment of national liberty is Stalin's personal achievement, and among his greatest.

Naturally, varying conditions demanded variations in the application of these broad principles of liberty. For example, although every child has the right to be educated in its mother tongue, it is impossible in some cases to observe the right, and for the time being there are three grades in which this right is exercised.

1. Some scattered tribes are devoid of the elements of an alphabet. Having no medium for instruction in their own language, this group receives instruction in Russian schools. At present no alternative presents itself.

2. Some tribes, again, though not possessing an alphabet or any national culture, yet live in compact groups, using their native language in their daily life. These receive elementary education in the language of their birth, and secondary and higher education in the Russian tongue.

3. Still larger nationalities, like the Ukraine, the White Russian, the Georgian, or the Armenian peoples, who possess cultural and historical traditions of a high order and have proved already their competence to do it, run their own educational system from the primary school to the university. Other national groups, such as Uzbeks and Tajiks and Turcomans, move steadily in the same direction. As they grow in number and importance national education supersedes Russian education in all its stages. That it receives encouragement to do so is witness to the sincerity of Soviet respect for nationality.

“Russification” has been the dread of the Asiatic peoples. It was a reality in Tsarist days. It was a danger in the early days of the Revolution, because Russia predominated in industry, culture, and power to rule. Russia had the great proletarian population. In Russia the Revolution sprang first to life. Through Stalin the danger was avoided, and the threat of “Russification” lessens with every passing year. The fact that it does so is a crowning proof of the genuineness of the communist effort to realize equality in the national sphere as well as in the economic order.

National liberty, then, has become a reality in the Soviet Union. Political liberty in the narrow sense of the right to upset the Plan, or reintroduce exploitation and profit, is

non-existent. National liberty was possible because it stood in another category. Nationalism and politics have, in the Soviet Union, become dissociated. Practical liberty in the national order is large and grows. In the circle of the Plan all are free and all are honoured. It is hard indeed to see how the Soviet Union could have acted with greater wisdom when confronted with its numerous nationalities distinguished by traditions of every kind, slavish to proud, and in enjoyment of a wide range of cherished cultures.

The result of this enlightened policy has been a growing richness of life and intercourse of the peoples. The new national freedom and the new economic order lead inevitably to expansion of industrial and cultural life. Native industries and native cultures alike are welcomed and encouraged. Resources, cultural and material, untapped before are developed now. Railways, waterways, motorways, and airways make transport and transit relatively quick and easy. The national republics are brought into physical and cultural proximity each with the other, and all with the centre.

Quite obviously this mode of settling the problems of minorities is utterly opposed to all fascist solutions. Quite obviously, also, it is nearer than any solution yet proposed to satisfying Christian ethics. It offers a magnificent example to a troubled world. It is bound, ultimately, to exercise an influence on international relationships at large. It gives the clue, as we shall shortly see, to the Soviet Union's foreign policy.

No one can wander through the Soviet Union, as I have done, and visit republic after republic, and see the mingling on terms of absolute equality of the peoples of different nationalities, without a deep consciousness that a new thing has entered into the world of human relationships. It may be illustrated in a thousand concrete cases. To me it is best seen in the case of my friend, Paul Robeson, the great African singer, and his seven-year-old son, Pauli.

Robeson had, in 1934, seen the performance in the children's theatre which I have described on an earlier page, where the hero was an African boy. During the interval he took a stroll. The children immediately

crowded around him, somehow connecting his presence with the boy in the play. A little boy of eight hugged him around the knees, saying, "I'm so glad you've come; you will be happy here with us. Don't go." For the remainder of the play he sat beside Robeson, holding his hand.

" Everywhere I went [to quote Robeson's own words] I found the same welcome, the same warm interest, the same expression of sincere comradeship toward me, as a black man, as a member of one of the most oppressed of human groups. I kept thinking how much my shy, sensitive Pauli would enjoy this warm interest, this sincere friendship."

Visiting Moscow again in 1936, he took part in producing a motion-picture and lived on a collective farm some distance from the city, in a beautiful village of sturdily built houses, a spacious common, meadows, and ponds.

" The children of the village [he proceeds] astonished me. They had learned a good deal about the American negro problem in school. Most of them had just seen the film 'Circus', and were full of praise for Jimmy, the little coloured child of the picture, whose father I knew.

" We went swimming in the lovely clear streams; on the way home we passed the villagers harvesting in the fields; great reaping-machines were swiftly gathering in the yellow grain. Then the leisurely walk back. A healthy meal and then, as the dusk came on, a general gathering on the green. The children sang for me, and I sang negro songs and delighted them with a few Russian melodies.

" We talked about my little boy. They said I must bring him to the Union to be happy with them. I thought: That's an idea.

" It was a sad day when I had to leave. The truck rumbled away with the children following as far as they could, calling, 'Come back soon, Pavel Vassilich, come back soon. Bring Pavlik with you, and come back soon.'

" All the way home I thought of the children in the Union, so gay, so forthright, so intelligent, so full of real

comradeship. How marvellous it would be if Pauli could enjoy this comradeship! If it were only possible. Why not?"

On his return in 1937 Robeson took Pauli and Pauli's grandmother with him, and left them both while he sang on his concert tour.

"When we returned to Moscow [he continued] we found him a different child; no longer shy, sensitive, and moody, unconsciously defending himself against rebuff, against being an 'outsider'. He was *one of the children*, he was a member of his group, and he revelled in this great experience. He held his head high, his shoulders back; the children, the school have taken him in; he 'belonged'. We were deeply moved by his eager face, his quick smile.

"In the Soviet Union Pauli has a very bright future: every chance to find out what he wants to do (at present it is 1: aviation engineer, 2: physician, 3: musician) and once he decides he will find complete equality of opportunity. Further, he will meet and know children of various groups and nationalities, and will experience in his daily life the essential oneness of all peoples.

"He will know that the parents and grandparents of these children, through great suffering and sacrifice, have created this new land, that their sons and daughters might have a better and richer life."

2. THE GOLDEN UKRAINE

WHEN WE speak of the Russian Empire we speak loosely. There is no Russian Empire. The word empire suggests a definite conception entirely contrary to the spirit of the Soviet Union. It suggests dominant control. In the old Russian Empire the Tsarist Government in Moscow dominated the national groups which composed it, treating them as exploitable colonies. The word Soviet Union is designed to conjure up a widely different picture.

The Soviet Union is a confederation of States who accept the fundamental principles of planned production for community consumption and combine their territories under a common scheme to give these principles effect, with common weapons of defence against external attack.

Article 13 of the Constitution tells us that the Union of Soviet Socialist Republics is a federal State, formed on the basis of the voluntary association of the Soviet Socialist Republics with equal rights:—

Russian Soviet Federative Socialist Republic.

Ukrainian Soviet Socialist Republic.

Byelorussian „ „ „

Azerbaijan „ „ „

Georgian „ „ „

Armenian „ „ „

Turkmen „ „ „

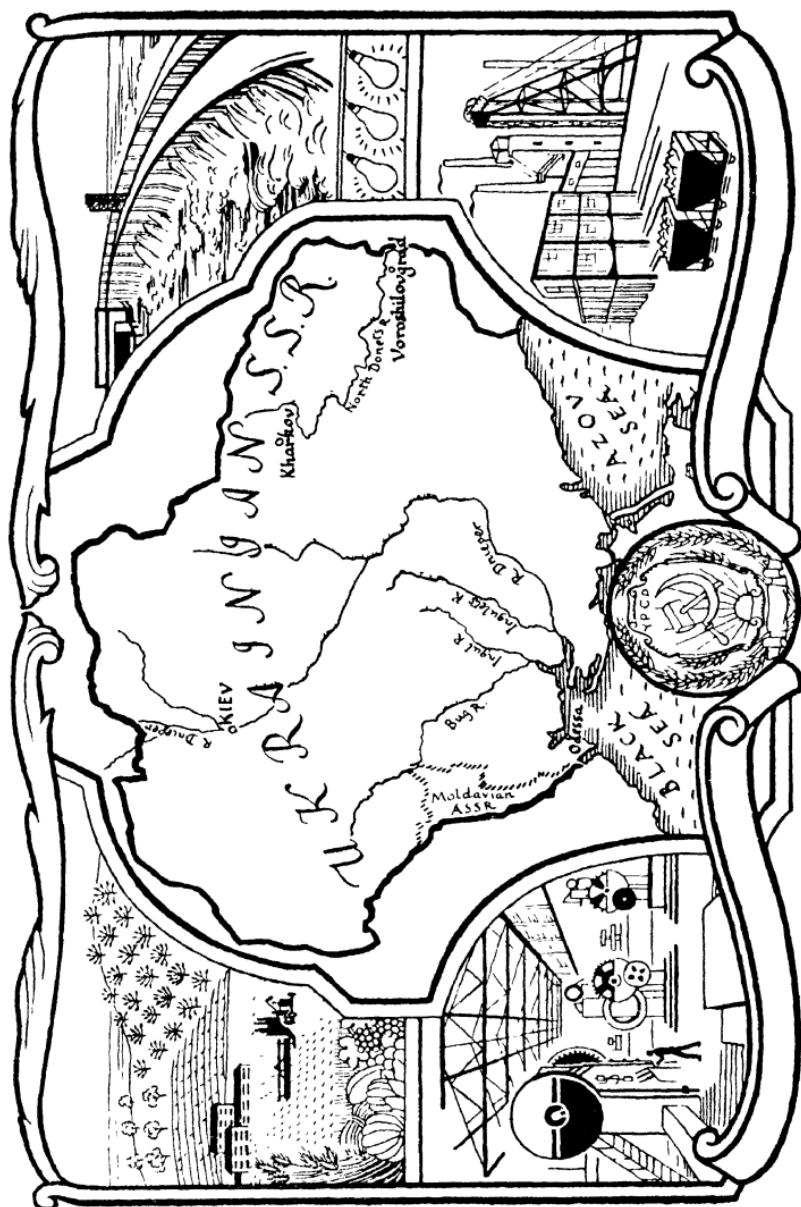
Uzbek „ „ „

Tajik „ „ „

Kazakh „ „ „

Kirghiz „ „ „

The powers of the Union are wide. They flow naturally from the operation, maintenance, and defence of the plan, awakening the sense of responsibility, and safeguarding the interests of each co-operating member. All must unite in concluding treaties with foreign States. All must share in defence, and in questions of war and peace. All must



share in ensuring that the individual constitutions of the separate Republics shall conform with the Constitution of the U.S.S.R. All must take part when change in boundaries between republic and republic shall be found necessary. All must share in the regulation of foreign trade, which in the U.S.S.R. is a State monopoly. All must share in establishing national economic plans, in framing the budget, in administering bank credit and money, in trading enterprises, transport, loans, education, and health. All must share in establishing basic labour laws, and in formulating criminal and civil codes. All must share in formulating fundamental principles regulating the use of raw materials, forests, and waters.

Apart from these and kindred concerns each Union Republic makes its own Constitution in conformity with the general Constitution of the U.S.S.R.

Most Republics are further subdivided into Territories, Provinces, or Autonomous Regions. The territory of no Union republic may be changed without its consent.

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The Republics vary enormously in population, industrial and agricultural development, and culture. The Ukraine, even in the Tsarist regime, was populous and, as far as Russian standards went, advanced. The Kazakh, Tajik, Kirghiz, and Uzbek people were still in the dark and primitive ages.

Now, however, all the republics move towards a greater equality of cultural and industrial development; whilst each retains, or indeed increases, its distinctive local colour.

Leaving the Russian Soviet Federative Socialist Republic on one side, the Ukraine was the most interesting of the five republics I visited, and Kiev, its capital, the most beautiful town I saw. The Ukraine covers a vast area in the south-west corner of the Union, bordering on Rumania and Poland, and washed on the south by the waters of the Black Sea and the Sea of Azov. The density of population is nearly as great as in Denmark; it contains almost a fifth of the population of the Soviet Union.

Hitler covets the Ukraine. And understandably so. The land is surpassingly rich. The Ukraine is a granary

to the Soviet Union, producing more than a fifth of Soviet wheat, a third of Soviet barley, a quarter of Soviet maize, and nearly three-quarters of Soviet sugar-beet. I have stood and gazed in wonder at Ukrainian wheat-fields stretching away across the smooth contours of a rolling countryside to the far-away horizons. The rich Black-Earth belt, containing some of the finest wheat-lands in the world, spans the territory from east to west, and modern modes of agriculture combine to increase its natural fertility. With a climate the mildest in the Union, and with a rainfall the amplest, the Ukraine is the farmer's paradise. Wide rivers—the Dnieper, the Dniester, the Ingul, and the Pripet—water the rich Ukrainian plains; oaks, limes, and ash flourish in immense Ukrainian forests, and to the south-east stretch away the illimitable Ukrainian steppes.

Not wheat alone attracted Hitler. He coveted the coal of the Donetz basin, 66,000 million tons of it; and the iron ore at Krivoi Rog, 800 million tons; the mercury at Nikatovka, the lead-zinc ores and gold, and the phosphorites and labradorites, marbles, and dolomites.

For the Ukraine has enormous natural wealth. Long before it tempted Hitler, it had attracted other industrial powers lying farther to the west. Stalin, in 1918, wrote:

“ Prior to the Revolution, the Ukraine was exploited by the imperialists of the west surreptitiously. Having established tremendous enterprises (coal, metal and so on) in the Ukraine, and having secured the majority of the shares, the imperialists of France, Belgium and Britain drained the blood of the Ukrainian people in a legal, in a ‘ lawful ’ manner quietly.”

Though the Ukraine was the most industrially developed part of the former Russian Empire, it remained backward in comparison with the more advanced industrial lands, and to the Soviet citizen the invasion from the West was a crime.

On a wider view, however, the Soviet Union may owe more to the industrial enterprise of the West than it is willing to recognize. For it was industrial workers that engineered the Revolution, and the Ukraine itself pro-

duced Voroshilov, the railway worker who wrested the Ukraine from the Germans. Today he rules the Soviet Army as its Commander-in-Chief, and legends already grow around him.

Two Voroshilov legends are typical, and probably in essence true. At a crucial moment in the war of intervention, Tsaritsyn, a key city for the Soviets, was besieged by White Cossacks and seemed destined to fall. The old Soviet generals wiped it from the map and prepared the retreat. Stalin ordered the young Voroshilov to meet him in the military train and handed the defence to him. Voroshilov learned at the same time that Lenin, who had been shot by an assassin, lay at the brink of death. Lenin was spitting blood. Tidings of victory might revive him. But the war goes awry in every field. Departing silently and hurriedly Voroshilov turns retreat into attack. Flinging his Red Army, with himself at its head, like a hurricane upon the Cossacks, he drove them into and beyond the Don. Stalin sent an immediate dispatch to Lenin. The tide of war had turned. The leader's life was spared for another further spell.

Another legend tells that, hard pressed in battle and starving for lack of food, Voroshilov, with some women and quick-witted lads, snatched a food-wagon from the very hands of the enemy on a dark and stormy night, and with their help hauled it to his camp. As they toiled along the road, a woman breathed heavily and stopped. To his horror, he found that she was pregnant. He insisted that she should ride, whilst he and the others pulled the added load. At dawn, and in their camp, the babe was born.

Later, when on a retreat, he learned from a straggler that the wagon had been blown to pieces by a shell, and abandoned within sight of the White's camp. The father and mother were both killed.

“And the child?” he inquired.

“It lay unhurt beneath the cart,” he was told.

Without a word he mounted his horse and, followed by two railwaymen from Lugansk, galloped straight back towards the astonished Whites. Seizing the child before a

shot could reach him, he galloped back and handed it to the women with orders that they must procure a goat to provide it with milk.

They called the girl Gul-Gul, the name he give her, and she grew up at the front.

The Ukraine advances with mighty strides. It still holds its lead as the coal, iron, and steel base of the U.S.S.R. Figures of production leap ahead, and in coal the Ukraine by itself outstrips Poland, France, and Japan: in iron ore it outstrips Germany, England, Sweden, and Spain. The Kirov Iron and Steel Works in Makeyevka alone produce as much pig iron as Poland and Italy together.

Machinery pours forth; tractors to turn up as much Black Earth soil in an hour as a horse ploughs in a day; steam turbo-generators to light cottages, cook meals, and iron clothes; locomotives for new railways, and harvester combines for the wheat-fields of the Steppes.

The Soviet Ukraine no longer asks for foreign engineers or foremen. The sons and daughters of her own peasants and workers serve her now, trained in her own schools, colleges, and technical institutes.

Ukrainians are proud—proud of their traditions and proud of their national tongue. The Ukraine has her bards and her writers. The 125th anniversay of the birth of Shevchenko, the Ukrainian poet of freedom, is being celebrated this year. Shevchenko was a people's poet in the true sense of the word. He rose from the common people, lived with them, suffered with them, and was bound to them by all the circumstances of his life. With difficulty he had obtained his freedom: his brother and sister, to his bitter grief, had remained serfs. His passion for poetry and painting enabled him to excel in both arts. But his plea for a society in which there would be no masters and no slaves proved abhorrent to the authorities, and he was sent into exile in the capacity of a common soldier. Affixed to his sentence, and in the Tsar's own handwriting, was an order prohibiting him from writing or painting.

Shevchenko's diary is a fascinating volume. I cull this little abbreviated record at random:

"Skobelev was a countryman of mine. I chiefly remember him for his singing of Ukrainian songs. He had a soft tenor voice, and there was a peculiar expressiveness in the way he sang:

A little river running
Through a cherry orchard sweet.

"When he sang, I forgot that it was in a barrack room that I was listening to this lovely air. It wafted me back to the banks of the Dnieper, to liberty, to my dear homeland. Never shall I forget that poor half-naked, dark skinned fellow, sitting mending his shirt and bearing me so far away from the stuffy barracks with his artless singing.

"Skobelev discovered by accident that Lieutenant Obryadin, whom he served faithfully as orderly, had waylaid a letter addressed to him and had stolen the ten rubles in silver which it contained. Skobelev took the empty envelope with its tell tale seals straight to Obryadin and demanded the money. His commander dealt him a slap in the face. Skobelev replied with a sound box on the ear. There were witnesses and Skobelev was arrested. An enquiry was held and Lieutenant Obryadin was ordered to resign his commission. But Skobelev was sentenced to run a gauntlet of two hundred blows and was then sent to serve in a convict company in Omsk for seven years.

"Poor, unhappy Skobelev! Honestly and nobly you returned that gentleman robber blow for blow, and for this honest deed you had to run the gauntlet and be sent in irons to the banks of the lonely Irtish and Om. In your new captivity will you ever meet, I wonder, as attentive and grateful a listener as I was of your sweet and mournful songs?"

Shevchenko's words sank deep into the hearts of his people. What Pushkin did for the Russians, Shevchenko did for the Ukrainians. He gave utterance to their long-

ings for freedom and the brotherly life. He unfolded the wealth of folk dialect and gave proof of the melodiousness of the Ukrainian tongue. His grave, overlooking the Dnieper, has become a place of pilgrimage.

Now the Ukrainian tongue is free and Ukrainian culture welcomed. Ukrainian children are taught in their mother tongue. Russian is an additional tongue. Soviet children, throughout the whole Union, learn to speak at least two languages. Most English children learn but one. The volumes printed in Ukrainian were a hundred times as numerous in 1936 as in 1914; and where one Ukrainian newspaper was published prior to the Revolution, 1,400 are issued today.

The Ukraine grows rich and strong—so strong that the capital returns from Kharkov to Kiev, its old and vulnerable home near the western frontier. No fear of conquest now. There is less talk of the march to the Ukraine. There was plausibility for hopes of conquest during the years of famine, when the richer Ukrainian peasants had burnt their grain and slaughtered their cattle rather than yield them to the central Government, or exchange their individualistic agriculture for life on collective farms. It was a tragic time. The peasants were stubborn and failed to understand. The State was in deadly peril. A bad harvest, food shortage, conditions approaching civil war, and, as the recent trials proved, groups in high places fostering revolt had created grave difficulties for the Soviet Union.

The storm was weathered, and Hitler would find no "Fifth Column" within the Ukraine today, even if he could muster a tiny force from the half million Ruthenian Ukrainians to march against upwards of 30 million who now bear the Ukrainian name in the Soviet Union.

* * * * *

Kiev, the capital, is an interesting city: its million inhabitants more interesting still. I never wearied of the promenade up its noble central street, on pavements incredibly wide—30 or even 40 feet wide here and at Rostov, and crowded on summer nights with an endless stream of

genial promenaders. Lines of young men, and other lines of young women, linked arm in arm and six or eight abreast, kept up a merry chatter as they walked, and looked as healthy and happy as young people ought to look. Not once did I see a sign of horse-play or hooliganism or what in Lancashire is described as "barging".

The shops were full, the main provision shops large, brilliantly lit, scrupulously clean and as scientifically modern as any I know in London or Manchester. Intriguing, too, with food ready prepared for cooking; glass-protected, refrigerated by hoar-frosted pipes, and yet all immediately beneath the eye and the pointing finger of the purchasers, and assembled in an infinite variety of forms. Chops and cutlets, fish, flesh, and fowl, dipped in batter and sprinkled with breadcrumbs, all ready for the ovens, reducing the housewife's work to a minimum.

A large bookshop contained a special room for children with leather-upholstered easy-chairs of children's size, where children sat and read and examined the books they contemplated buying, and where skilled assistants from time to time gave talks on books as guides to appropriate purchasers.

At the Children's Palace I was fortunate in alighting on an exhibition of children's work. The six- and eight-year-olds had drawn and painted imaginative scenes from Pushkin's stories: thrilling little pictures in gayest colours, of arks on stormy waters with fiery, lowering skies, or islands in sunny seas with waving palms. The older children had drawn Pushkin himself, his home and incidents in his life and death; and a hundred other themes besides. There was talent in abundance here and a mastery of line and colour that stands comparison with our best. The Ukraine has an innate sense of beauty; it is the land of the embroidered shirt and blouse. The Ukraine excels in many forms of art, music in particular: a famous musical academy in Odessa produces an abundance of prize-winning children, some of them victors in world competitions.

Kiev is proud of its magnificent old monastery, the Lavra, and of Vladimir, the Christian prince, who "opened

the doors to Western culture" through the old and magnificent cathedral of St. Sophia. The monastery is beautifully preserved, as is every ancient monument in the city, especially the mosaics in the old cathedral: the Soviets are almost as idolatrous as Americans over ancient buildings, and know how to appreciate ancient works of art.

The Lavra is used for propaganda purposes; an anti-God museum they call it. They will show you the trap-door behind the altar and the cord with which the priest made the image bow graciously to the astonished and superstitious peasants if the gift they had bought was worthy of a miracle. To this and many other tricks I merely said with a smile: "We got rid of this sort of thing in England two hundred years ago: religion with us stands for other and better things."

Perhaps what embittered them most was the comparison between this sumptuous wealth and the richness of the gifts from great landed gentry and the poverty and ignorance of the peasant worshippers. It seemed to them heartless and cruel as well as superstitious.

The inhabitants of Kiev seemed especially incensed at tales of their immorality told and believed by the Western world against the Soviet system. It would be hard to find a city or a land, as far as one could see, more moral than Kiev and the Soviet Ukraine.

Swift electric trams carry you from Kiev to the country, through streets half paved as yet, and past dwellings in the making. I was struck with the number of detached houses which vie now with the large blocks of tenements. Many Russians, like most English, prefer a house surrounded by its plot of garden.

Away from the town lie the great pine-forests, in one of which stands a sanatorium for tuberculous children: a lovely homely place of large sunny buildings, fine broad walks and flower-beds, and with a diminutive enthusiastic doctor at its head, whom my companion, a Scottish specialist in tubercular disease, questioned long and closely. The children greeted us with flowers and entertained us with songs, speeches, and dances. They were entirely

natural and unconstrained. They remain at the sanatorium until a cure is reached, and continue their education precisely as at home, with resident and visiting teachers. No pains are spared to make life normal for them.

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In the south-east of the Ukraine, around Odessa, stretch the endless steppes, now under cultivation by collective farms. I arrived at one by accident on reckoning day, when wheat and wine and cash were in process of division. The season had been good and distribution was high. The standards of pay were curious and, from an English point of view, somewhat topsy-turvy. For example, the man who drove the tractor, or the skilled girl who managed the piggery, received more than the manager. They were technicians.

In the farm new sheds had sprung up around the central buildings. A percentage of profits every year is treated as capital and dug back into the enterprise and serves to increase wages at a later date. The roads were still rough and the place lacked the trim neatness of a Dutch or Danish farm. But there was evidence everywhere of vitality and mighty promise of more to come.

The pig-shed, filled with mothers and sucklings of all ages, surpassed anything I have seen here or elsewhere. It was scrupulously clean, and I, and all who entered, were requested to wipe our feet carefully in the medicated sawdust which lay before the threshold, lest we should carry dangerous germs upon our boots.

Vineyards had been a new adventure on this farm and had proved an unqualified success. A large storage-barn housed barrels of excellent wine, which I was compelled to taste and try. The farm was in constant communication with the agricultural college at Odessa, where advice is given to all who seek it.

We wandered through the village, a sprawling collection of wooden houses, spaced well apart for fear of fire spreading. Each house possessed its own strip of land where individual cattle and hens are kept.

In the crèche a score of babies were sleeping in neat

cots, swathed in the Russian fashion and guarded with care and cleanliness by an elderly motherly soul.

The radio, the gramophone, and the bicycle invade the village now, and though the standard is not yet as high as ours, it is more evenly distributed, and rises with increasing rapidity.

Twenty-seven thousand such collective farms stretch out across the steppes and the Black-Earth belt. No change in Russia is greater than the change upon the land.

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The Black Sea steamer which carried me from Georgia to the Crimea, and later from the Crimea to Odessa, was a large and handsome boat, with excellent cabins, saloons, and meals. The decks were free to every class of passenger, and the more primitive peasants travelling from the Caucasus to the Ukraine sat huddled in family groups in all sorts of nooks and corners. The night was hot, too hot to sleep in cabins, and I wandered from time to time amongst the sleeping groups on decks. Here a woman, surrounded by several small children, hugged her baby to her breast, and there a man hugged his balalaika; for a peasant loves his music. Clothes for the most part were the old peasant clothes. Clothes are no criterion of prosperity in the Soviet Union as yet, and many ill-dressed peasants are really well-to-do. The tendency to dress well increases, however, and several of the young men and women on vacation were dressed in the smart sports clothes of Alpine climbers, with mountaineering boots and zip pullovers.

I must confess to a lapse of good manners one afternoon in the smoking-saloon, with its handsome panelling and low coffee-tables of inlaid wood. Tired out with walking, I had rested my leg along a low table whilst talking to my friends, carefully avoiding, however, touching it with my boot. After awhile the gold-braided captain approached me and politely, and with a friendly smile, requested me not to do it. Seeing I was a foreigner, he said apologetically: "it is not the custom in our country." What he really meant was that the new standards of culture were being violated. To rest one's leg on a table is not "cultured". It might damage the common property.

3. AWAKENED ASIA

IF THE Ukraine was one of the most populous and progressive of the larger units in the Soviet Union, Uzbekistan was one of the most backward.

Prior to the Revolution the Uzbek peoples were ruled by a Tsarist Governor-General, working in conjunction with the Emir of Bukhara and the Khan of Khiva, as vassals of the Tsar. Russian capitalists and local upper classes exploited the common people shamelessly. Peasants were pitifully poor and lamentably ignorant. Toiling on the land, they turned fragments of desert into oases by hand-dug canals to the increase of their landlord's riches, not their own.

Ignorance was fostered. Only two in every hundred could read, and these were mainly the mullahs, or Mohammedan priests.

Bukhara and Samarkand, as the land of the Uzbeks was formerly called, are names of romance. They recall Jenghis Khan and Tamerlane. Travellers thrill us with tales of a land rich in incense-bearing trees, vineyards, pomegranates, cotton plantations, bazaars, rugs, silks, and gleaming towers of mosques where turbaned mullahs recite sacred verses from the Koran.

The beauty of apparel, the quaintness of the village, and the mystery of veiled women may charm romantic travellers; they shock the modern cultured Central Asian as symbols of backwardness, ignorance, oppression, and mute misery. A fair cloak with festering disease behind it.

The new world in Central Asia has no use for these relics of servility; that which had some beauty for the few had much squalor and terror and barbarism for the many. Clubs, cars, cinemas, factories, and electric light have better values. Industrialism has no terrors for the Central Asian, as it had for us, who grew up in its evil days. Industrialism there is controlled and beneficial. It sets man free, and sets the bards singing of the glory of a healthier and more exhilarating order.

News spreads like a prairie fire in the East. What was happening in Moscow travelled fast through the plains of Russia, over the Ural Mountains, and across the Kazak desert Steppes to the land of Samarkand, at first as incredible fairy tales, and then as wonderful realities. And when the tractors themselves came to plough the lands, and cotton-mills sprang up to weave the cloth, and power-stations to flood factory and hut with electric light, the news spread over the southern frontiers to Persia, Afghanistan, Mongolia, India, and China.

When tractors ploughed the fields in remote Khokanyor there were other spectators besides the farmers and local villagers. Silently day and night sat Afghans from across the border watching them at work. What the Soviets do acts as leaven in the East.

Not at once did the old order change. In Bukhara the Mohammedan mullahs were supreme; education, justice, and family control were in their hands, and they were eager to keep them there. No modern learning gained a foothold in Bukhara. Science, mathematics, and modern languages were banned. Nothing was done to improve agriculture, nothing for health or culture, nothing for bridges, roads, or sanitation. Irrigation was immature and primitive. Industry was strangled at birth. On the grounds that Uzbekistan must not compete with Moscow the Governor-General of the Turkomans refused the request to build a cotton-mill in Tashkent. There was another and a more sinister reason too. Peasants were docile. As mill operatives, they became proletarians and dangerous.

Behind the high, windowless walls life flowed on as it had done for centuries, the man an absolute monarch in his house, with polygamy and forced marriage fostered by local Mohammedan traditions. High above the town rose, as the grim emblem of a city, where violence reigned above and lawlessness flourished beneath, the Tower of Death, where girls were condemned to terrible infamy and men impaled.

The Russian Empire had seized the three Central Asian Khanates and expropriated the semi-nomad tribes of Kirghiz, Turkoman, and Uzbek. Their lands were robbed

of raw materials. Russian capitalists opened banks, bought up cotton, sold Russian manufactured products, and changed the economic and social status of the land, with pauperization of the masses as its result. Extremes of wealth and poverty appeared in the village, and as cotton growth needs capital, the peasants passed under the control of the Russian capitalists who provided it.

Cotton-growing in these conditions proved disastrous to the lower strata of economic life and produced a homeless population wandering for a job. Peasants had lost their land, and with the prohibition of industry they lacked factory jobs such as in England or the U.S.A. had acted as compensation. Many, as in China, took to lawless ways and practised brigandage from mountain fastnesses.

The nomad agricultural peoples of Kirghizia, Kazakhstan, and Turkmenistan were crowded off their lands by colonists from overcrowded areas in other parts of the old Russian Empire. Their plight was still more pitiful. Like North American Indians they became a people in process of extinction.

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Into this ploughed-up soil of human misery the seed of communism fell. It found firm root, and a desperate struggle began, and lasted for a dozen years, until full victory was won.

The growth of communism in Central Asia was deemed a serious menace to lands south of the Central Asian borders. The millions of Mohammedans, Mongols, Jews, and Armenians in what had been the Russian Empire were bound by a thousand ties of religion, nationality, and trade to the lands across the Russian border. England especially feared the menace and endeavoured to form a counter-revolution. Critical American writers like Joshua Kunitz, in his valuable "Dawn over Samarkand", even suggest that British imperialism had grandiose schemes to sweep the whole of this vast area of fertile valleys, large spaces, and mountains rich in minerals of Central Asia and the Caucasus into the lap of British Imperialism. At any rate

their armies held the Caucasus and their fleets the Black and Caspian Seas.

The infant Soviet growth was never in greater peril than in Central Asia. But, to the astonishment of the world, the central citadel at least held out. The White Russian *émigré* Potekhin writes in 1921:—

“ It is sufficient to point out the incredible fact of the existence in 1918–1919 of the Turkestan Soviet Republic. Completely cut off from Moscow, surrounded on all sides by Dutov’s, Kolchak’s, Annenkov’s, Denikin’s, and the English armies, deprived of transport, fuel, grain, the Turkestan Bolsheviks managed to hold their own even in those most difficult years.”

The fight in Bukhara was more prolonged and more severe. The Emir of Bukhara used all his wealth and prestige to stay the Soviet growth. The Mohammedan priesthood aided him. And Britain lent her help indirectly through the Caspian and the Caucasus, and directly wherever else she could. At length, to the bitter grief of the Emir, and through troubles in Afghanistan, Britain withdrew. Colonel Etherton reluctantly relinquished his designs to capture the vast stores of Central Asian cotton, which might have paralysed the textile mills of industrial Russia 1,000 miles away and thus help to break the Soviet rule in Moscow. At length the Emir fled across the border, and though the fight struggled on for some years, with Enver Pasha and the Basmachi, the mountain brigands, as the tools, at length resistance collapsed in Central Asia. Kolchak’s Siberian armies disappeared, Denikin was driven from Southern Russia, and the Red Armies seized the Caucasus.

Bukhara and the large and artificial Central Asian states were broken up into smaller groupings on the sounder basis of ethnographical, cultural, and national affinities.

The new Republics thrust themselves into the roots of the great mountains which form the northern wall of India. The Tadjik Soviet Socialist Republic, which includes the Gormo-Badakhan Autonomous Republic, lies nearest of all to the walls of the British Empire—a short flight over the mountains and you are in Kashmir. North of Tadjikistan,

and running from Chinese Sinkiang eastwards to the Caspian Sea, lie Kirghizia, Uzbekistan, Turkmenistan. North of that again, and running along the northern border of each of these, ranges the vast Kazakh Soviet Socialist Republic.

Full-blown socialism came slowly amongst these peoples. First the land was recovered for peasant proprietorship, as had been the case in Russia proper. The long-continued abuses, greed, and indolence of the governing classes made them vulnerable, and they fell.

The next stage was won by the tractor. It had been hard for the peasant, having got possession of land, to relinquish it again and join in collective farming on a larger grouping, and there was danger that individual peasants might grow rich and, by adding land to land, recreate the evils from which they had escaped. The tractor saved them from themselves. The spring of 1930 was the critical moment. Spring-tide was late. Time for sowing was brief. The peasants struggled to scratch the earth with their wooden ploughs. And there across the line dividing his narrow fields from the State farms and the collective farms, the great steel horse tore up the hard earth at a furious pace. In vain the mullahs warned the farmers that "fields ploughed with tractors yield no harvests". The marvel was wrought before their astonished eyes. The tractor had won. Peasants joined the collectives. Planned economy had arrived for the cotton industry of Central Asia.

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The Uzbeks, having been established as a Union Republic in 1924, have been in fifteen years, transformed from a backward Tsarist colony into one of the most flourishing republics of the Soviet East. In 1928 the first Uzbek cotton-mills were built, and then construction of a huge textile-works was started, called by Stalin the new base for the Soviet textile industry. These mills are to produce 150 million metres of fabric annually.

Cotton-fields need fertilizers. The hydro-electric stations on the Chirchik River, near Tashkent, the capital, provide

the power for depositing nitrogen from the air. More power stations arise and new industries spring up: silk, food, leather, clothing. Uzbek becomes rich and more nearly self-contained. Twenty thousand tractors plough its fields. One million tons of cotton left the fields in 1935. The plan was carried out ahead of time.

Uzbekistan is now the largest cotton base in the Union. It furnishes two-thirds of the cotton grown in the U.S.S.R. The hoard Colonel Etherton coveted for England twenty years ago was a mere trifle in comparison with the yearly output of socialist Uzbekistan. The farmers thrive; many families in collectives earn more than 10,000 rubles annually, and more than a hundred collectives have moved into what is called the "millionaire" class, where the total farm income exceeds 1 million rubles annually.

Culture follows in the train of output and efficiency. All children attend school. Nearly 25,000 students attend higher educational institutions: Uzbekistan trains its own agronomists, engineers, doctors, and teachers.

Uzbek women, as we have seen, have passed from mediaeval servility to equality of status with men.

Uzbek art revives and thrives. Uzbek painters hang their pictures on the line in international exhibitions. And in a land where in Tsarist days the very word "theatre" was unknown, a crowded house now hears "Hamlet" spoken in their native tongue. Uzbeks, who might not sit in the presence of Tsarist officials, and whose women might never show their face in public, now give a ten-day festival of art, singing, dancing, and acting, in Moscow; the women singing, acting, and dancing side by side with men. Sarah Ishanturayera enchants Moscow with her lyric voice.

From Bukhara the communist movement spread on to Tadjikistan, whose borders, as we have seen, ran along the frontier of Afghanistan and up to the Pamir Mountains beyond which India lay.

Tadjikstan was established as the seventh Soviet Socialist Republic in December, 1929. The impoverished peasants who survived the long and bloody warfare in which they gained their freedom found themselves in a land of ruins.

Out of these ashes new cities now rise. The land of the Koran, the whip, and cruel injustice, enters a new life and builds a new order. Stalinabad, the youngest city of one of the youngest States in the world, becomes a familiar name. Lying in a gap betwixt snow-covered mountains,



Uzbek women who might never show their faces in public, now give a ten day festival of art, singing and dancing

yesterday it was a collection of mud huts and narrow streets; today it is a busy city where factories roar and a new, cleanly, and orderly beauty replaces the squalor of the past.

Lacking skilled workers and building materials, but daunted by no obstacles, the new-fledged communists, led by Russian missionary workers, wrought wonders. Stalinabad arose, and from it culture, industrialization and socialism spread over the entire country, penetrating

to remote villages, inaccessible mountains, and impassable deserts. Road-building gangs carry new highways across the mountains; carts, auto-buses, and tractors become familiar sights.

The swift torrents of the Vakhsh River, which runs through Tadjikstan, is harnessed to a gigantic agro-industrial works and then spreads out through a vast irrigation network over upwards of 41,000 acres of land, where grows some of the best cotton in the world: the channels placed end to end would nearly circle the earth at the equator.

In the Bukhara Khanate there were 8,000 witch-doctors, and only one doctor, who attended the Emir, his harem, and his Court; today medical students are studying in scores of anatomical auditoriums. Malaria is now tackled by scientists rather than by men who administer paper pills of the Koran to be swallowed as a certain cure.

National minorities—Uzbeks, Turks, Afghans, Jews, and a dozen more—live amicably side by side in Tadjikstan now. Under the Emir each tribe was bitterly hostile to the rest.

4. DAWN IN THE EAST

(i) *Yakutia and the Arctic North*

AWAY FROM the industrial centre, and northwards of the Trans-Siberian railway, from ocean to ocean there extends a vast and formerly illiterate continent, a land of hunters, shepherds, and beggars, robbed by travelling merchants, worn down by poverty, and living under a feudal or patriarchal rule. The Yakut Autonomous Soviet Socialist Republic, occupying the largest of these areas, is equal in size to the whole of Europe, an untouched land of boundless forests, vast mineral wealth, and rivers making it potentially the centre of the world's water power. Cold crystal lakes peer up towards where rugged, snow-covered mountains rear themselves until they touch the clouds. A wall of silence separates the taiga of Yakutia from the world of noise, traffic, and human events.

The new high-sounding name of this republic speaks of the future, rather than the past or even, save in magnificent suggestion, of the present.

In the past, in Tsarist days, Yakutia was a prison for political prisoners, Bolsheviks, and progressive intellectuals. Its vast snow-clad tundra and jungle-like taiga made it secure against escape without the use of bolt or bar. To venture on the tundra without a food supply was to court death from starvation.

The common people of Yakutia were pillaged by the Russian autocracy, pillaged by their own nobility, pillaged by their native priests or Shamans, and pillaged by travelling adventurers. For a packet of needles they were cajoled to exchange a reindeer, for a bottle of vodka a sable, and fox-skins for cheap tobacco.

Their food was mean and scanty—bad milk and rotten fish—and for housing they shared a room with the cattle. Disease was rampant, tuberculosis especially, and trachoma. It seems almost incredible to read Dr. I.

Popov's estimate "that of five to ten persons who lived in one *yurta* (a nomad's tent) only one could see; all the rest had to feel their way about".

A Yakut woman was a mere slave, forced to grind the corn, tend the cattle, and perform the household tasks. Like cattle, she was bought and sold. Child mortality was high; women gave birth to children on a bed of moss strewn on the cold clay floor.

Whole tribes became extinct. The race was in decay. The Yakut language was suppressed. In such schools as existed it was a forbidden tongue. In Tsarist days only 2 per cent. could read or write. There was no Yakut alphabet.

And now the Soviet missionaries have visited Yakutia, and the land has changed completely in a score of years. Aeroplanes fly over its impenetrable recesses, where the foot of man has never trodden, drawing maps and studying the contours from above. The new Lena line connects the Siberian Railway with the Lena River. The new Amur-Yakut motor road, 869 kilometres in length, runs from the railway through the depths of Yakutian territory, which never before saw a road.

Great efforts are made to turn the Northern Sea Route into a normally operating water-way. The flashing light-house appears in northern waters, with ice-breaking ships and aeroplanes to guide and protect the merchant-vessels. With the solution of the problems of the Northern Sea Route the conquest of the Far North will be complete.

Food problems are a matter of paramount importance in the Far North. And the Soviets confront them with success. Vitaminous vegetables and fresh milk are a vital need: "The anti-scorbutic vitamin 'C' is the basis of the cultivation of the Arctic lands." It was found impracticable to convey these weighty vegetable products through distances so vast. And needless too. The northern lands themselves develop an agriculture of their own. Thirty thousand agricultural machines work on the fields of Yakutia, and in a land where mercury freezes in thermometers in winter time, tomatoes, radishes, cucumbers, and water-melons flourish side by side with heavy

crops of wheat and rye. At Srednekolimsk, in Yakutia, the cultivation of a kilogram of potatoes would cost 17 kopecks: the transport of a kilogram from the south would cost 77 kopecks.

The north develops its own food basis now, and meets food needs with appropriate food supplies.

Industry expands. Gold is mined in the Aldan gold-fields and elsewhere. Silver, lead, tin, copper, zinc, and tungsten add to the wealth of the peoples. Coal deposits are discovered and operated, oil-wells drilled, timber felled, sawn, and dispatched, and the trade in fish, fur, and leather is extensively developed. Poverty recedes.

Illiteracy too. All children attend school. Seventeen newspapers, nine in the Yakut language, are in regular circulation.

Yakutsk, once a wretched village, has become a fine city of 25,000 souls. The National Library contains 200,000 volumes, and by it are an art gallery, a broadcasting station, and cinemas.

Folklore, which was dying with the people, is now fostered and encouraged. It forms the seed-bed of the new art of Yakutia, and flourishes with the improved material conditions, developed intensively by Yakut playwrights and actors. Twenty-four Yakuts lately received diplomas at the Lunacharsky Theatrical School in Moscow, and the plays "Long Live Man" by the Yakut playwright, Mordinov, and "Brothers" by Yefremov, strike new chords in the hearts and minds of the Yakut people.

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Educational pioneers, opening the doors to a new life for the untutored and victimized common people of the northern lands, will occupy an honoured place in Soviet histories of the future.

"The School in the Far North" is the title of a book published recently in Leningrad by A. Bazanov and N. Kazansky. It unfolds the romance of Soviet educationalists in their work in the founding of schools and training of scholars in Arctic regions. "The more I

read, the more I begin to wonder whether it would not be possible for me to become a writer like Alexander Pushkin. Who can say that this might not happen?" writes a pupil in a school for the Ulchi, a small nationality in the Far North, in his composition on the theme "What I Wish to Become", and expresses the new zest for learning and the new ambitions and enthusiasms which begin to fire Arctic youth.

The struggle to kindle that fire called forth the same qualities of love and devotion that led Anne Sullivan Macy, the undaunted teacher of Helen Keller, to her world-renowned successes.

Whilst geologists, engineers, agronomists, airmen, and seamen strove to bridge distance, build industry, and probe the earth for its riches, educators probed the minds of simple northern children and discovered human and spiritual values which will enrich the world's art and intelligence. Arctic youth may yet realize the dream of the small Ulchi essayist.

Peculiar difficulties beset the establishment of schools in these northern regions. No buildings were available. No teachers to speak the native tongues. No text-books in native speech. Not even a settled population in many localities, for many northern peoples live a roving life. Nomad schools were needed for a nomad people.

Gradually, however, schools have been built and teachers taught. There has been a wide demand for boarding-schools. Already by 1934-5, 80.8 per cent. of the children in the Nenets national area were attending school, 83.9 per cent. in the Khatanga area, 97 per cent. in the Narym area.

Long and perilous journeys lay before the new teachers, and a host of problems confronted them daily as they built up their schools. Practical difficulties arose. For the children were gathered from different tribes, each with their own customs and rooted prejudices. The Komi children, for example, at Lobozer-sk, enjoyed farina porridge; the Saami children hated it. Some could eat pork soup at dinner; some could not. One dinner at a boarding-school at St. Lawrence met disaster because the Chukchis children refuse salt entirely.

Hair-cutting and bathing, again, presented another set of problems. Modern teachers naturally like trimmed hair and cleanly bodies in their boarding-school. The children violently dissented to the bath-tub and the scissors: "Every Esquimo has a different style of haircut: it is thought that if all the children were to cut their hair in the same way, they may fall ill."

Great tact was needed in the bath-house: "A ritual law exists amongst the Esquimos and several other tribes under which washing is prohibited. After a month or two, however, the children get accustomed to the new regime and even teach their parents this innovation."



The children feared beds, from which they might fall.

The children feared beds, from which they might fall: "It often happened that on coming into the dormitory, one would find the beds empty and the bedding in disorder, and the children sleeping on the floor covered with their winter clothes."

Skill was needed in the teaching also. Methods of thought differ widely, and in some respects the Northern peoples lack the simplicity of southern lands. For example, some tribes possess no general numeration, but have more than twenty categories; persons, for example, are counted in one set of numerals and teeth in another. There are many odd superstitions and poetic fancies. Winter ice, for example, is dead, floating spring-time ice is live. But quick as lightning these children can judge the value of a

fox-pelt by the animals' tracks in the snow, and can predict weather with an amazing accuracy by changes in the form and colour of the clouds.

A new yearning for knowledge appears and a new ability. The world's intelligence and art may become the richer by the Northern people's gifts, and the Arctic boys may yet realize the dream of the little Ulchi essayist and rival Pushkin.

(ii) *Sakhalin*

“Sakhalin” had a sinister sound in Russian ears. “Exiled to Sakhalin” was akin to sentence of death.

How different the face of Nature may be when put to different purposes is never better seen than in the case of Sakhalin. Here is Sakhalin to a Tsarist *bourgeois* writer:

“Nature created this island in a moment of wrath, with the intention of making a prison of all things. Here the sea is a traitor and the shore is not a friend. Both sea and shore are to be feared.”

Here again is Sakhalin to a modern Soviet writer:

“We took a short cut through a footpath and walked near a young wood in high thick grass which reached to our waists. We found ourselves on a little hill. Unlike the gloomy entrance to the valley, near the sea, nature here was mild and pleasant; a blue sky, bright, warm sunlight, lots of vegetation which was very thick and knew no dust. On the horizon an undulating line of hills which merged into mountains. The hillside was covered with tree stumps; then a stretch of untouched forest. On that background a silvery spring wound in a fresh ribbon forming toy waterfalls and tiny little pools. The picture held a peculiar softness of line and colour.”

I instinctively recall Masefield's “Widow of Byfleet Street”, where the sodden ploughman, after a life of debauchery reaching its climax in a wild, disgusting night at the village inn, experiences a sudden conversion and

passes out in the early morning into the fields, to find them aglow with a radiance and a colour he had never seen before. The change was in the ploughman, not in Nature; and the change is not in Sakhalin, but in the men who used it.

For in Tsarist days Sakhalin, the island in the Pacific, lying off the coasts of the Maritime Province and Kamchatka, the extreme north-eastern point of Asia, and shared in its southern half by Japan, was used as a convict station. As such it had a monstrous reputation.

Chekhov, the famous Russian dramatist, who visited the island in 1890, records its gruesome story in his book "Sakhalin". Here, for example, is a typical passage:

"In every part of Sakhalin men executioners stripped the women prisoners and whipped them in the presence of wardens and curious officials. A pregnant woman was whipped in Korsakovka. In Alexandrovsk a political prisoner was whipped; he hanged himself next day."

"Convict Prohorov is brought to the prison office. He does not yet know that he is to get ninety strokes of the whip."

"The doctor, a young German, auscults his heart to determine the number of blows the prisoner can stand. He settles this question in the space of a minute."

"'Oh, you poor man,' sneers the doctor, 'aren't those chains heavy for you? Why don't you ask the warden—he'll have them taken off.'

"The pale Prohorov remains silent, his lips trembling.

"'You're innocent, of course,' continues the doctor, 'you're all innocent. How very distrustful people are in Russia! Oh, you poor man!'

"The prisoner feels that he cannot stand the uncertainty any longer.

"'What did you dream of last night?' asks the warden.

"'I've forgotten, your honour.'

"'Listen, then: you are sentenced to ninety strokes of the whip. You must get them today.'

"A sloping bench, with openings for tying the hands and feet, stands in the middle of the warden's office. The executioner, Tolstik, a sturdy man built like an

qthlete, nods his head at Prohorov; the latter lies down without a word. The executioner pulls Prohorov's trousers down to the knees, silently and without undue hurry; then he proceeds slowly to tie him to the bench.

"Prohorov is fixed at last. The executioner takes a whip with three leather tails and slowly sets it straight.

"'Don't give way, now!' he says in a low voice and strikes the first blow without swinging his whip, as if he were adjusting his stroke.

"'One,' says the warden in a monotonous voice.

"For a moment Prohorov is silent and even the expression of his face does not change. But suddenly a spasm of pain runs through his body and he emits not a scream, but a squeal.

"'Two,' shouts the warden.

"The executioner stands at the side and strikes so that the whip falls across the body. After every five strokes he goes slowly round to the other side and gives the victim half a minute's rest. Prohorov's hair sticks to his clammy forehead, his neck swells; after the first five strokes his body, which is covered with scars from previous whippings, becomes purple; the skin breaks at every blow.

"'Your honour!' he cries between his agonized screamings: 'Have pity, your honour!'

"After twenty or thirty strokes Prohorov mutters as if he were drunk or delirious:

"'I'm a miserable man . . . a finished man. What am I punished for? . . . Oh . . . Ah!'

"After that come sounds as if he were vomiting and Prohorov utters not a word more: only groans and a rattle in his throat. It seems as if an eternity had passed since the punishment began, but the warden shouts only forty-two, forty-three, forty-four. . . .

"Ninety comes at last. Prohorov's body is purple from weals which bleed. His teeth chatter, his face is yellow, his eyes are wandering. . . ."

Concubinage was taken for granted and practised

openly. Instead of curing crime, new crimes—we have the authority of high prison officials for it—were invented, some of the most loathsome description.

On this island rich in coal, oil, lumber, and fish, for years life was marked with the clank of fetters, the hiss of whips, and the screams of people under torture. Despair, lawlessness, all its rich resources left untouched, all its grand features turned to shuddering horror, it became a very devil's island, and well might have been written of Tsarist Sakhalin the familiar words of Dante: "Abandon hope all ye who enter here."

When the Soviets came to Sakhalin in 1925, the gloom departed, with the whips and warders and screams and convicts' manacles. Youth arrived and a new order with them. Chekhov wrote in his note-book of the crowd as he first saw it in old Sakhalin: "It consisted of men and women of working age, there were some old men and children, but youth was totally absent."

Young communists were sent to Sakhalin to organize its development and fire it with zest for a new life. Twelve hundred arrived in the first batch, 500 in the next, armed with axes for levelling forests, picks for digging mines, and drills to tap the hidden stores of oil. The story of the early struggles of the Soviet Youth and their unquenchable enthusiasm is not incredible to those who have worked with pioneers in pitching summer camps for Lancashire lads in the vilest of British weather.

A storm had separated one of the early party from its baggage, compelling the steamer which took the passengers to land them far away from their destination. They chose to go on foot through the forest to the site of their future "collective"; and not until three months after their arrival did the goods or the food for man or beast arrive.

"Heavy frost set in and snow lay deep on the ground. We had no warm clothes and no fodder. There was shortage of food. Some panicky people in town, and even in the combine, began to talk of closing the combine. Then the young communist organization showed its true spirit. In light shoes wrapped around in rags,

in summer caps and torn clothes, standing waist deep in snow, wood cutters felled timber for export and carters transported it with the aid of exhausted horses which could hardly stand; and even at that, not only fulfilling but exceeding normal speed . . . the young communists' working party, including girls, loaded . . . two thousand four hundred tons of export goods in four days (without port facilities)."

Sakhalin is rich in coal, oil, and fish. Coal lies in the mountain in layers slanting upwards. Horizontal shafts are driven through the mountain-side in successive stories, and the coal is pushed with the foot down the slanting shelf into conduits which shoot it to bunkers in the lower levels and then into the waiting trucks. Coal has exceptional value in the Pacific waters, and is worth more than ordinary pains in the getting.

The fishing industry and agriculture are born or reborn. At Shirokaya Pad fish were formerly caught near shore with primitive drag-nets. Little did the local fishermen know that the densest shoals passed them by, deep beneath the waters, far from the shore. The Pacific Institute of Fisheries, armed by scientific research, taught the "secret" to the State fisheries and the fishermen's collectives, and now deep-sea boats carry on the deep-sea fishing far from the shore and with abundant results. And the fish when caught are canned by the million and sent to the mainland as food. Formerly they were turned, in great cauldrons, into land-fertilizers.

Oil-derricks rise in thick clusters on the eastern coast. Oil-workers from Grosny and Baku, who volunteered to come, have taught new workers and trained new cadres. In two or three years the Soviet Oil Trusts reached an output which had taken Japan ten years to attain. The forest retreats before a thicket of derricks and a belt of vegetable gardens and dwelling-houses. Within seven years the oil-town of Okha had grown up with 25,000 inhabitants.

Industry gets firm footing in Sakhalin. And slowly the living conditions improve too. Solid cottages appear

in the mining areas, with print curtains, geraniums, and song-birds in cages.

Stakhalin has its native population. Under Tsarist rule it was slowly dying out. But not so now. The Soviets have a special care for native people. They fostered them as they fostered seeds native to the soil, and then developed them. Nor was their task an easy one. Guilyak native villages stood low in the cultural scale. The winter huts lie dug to half their height in the ground, with smoke floating everywhere within them. Wretched dogs tied to posts make a melancholy howl and dead fish a dreadful stench. Filthy children devour living fish, which still quiver in their hands.

Women were bought and sold like cattle—a girl, for example, may cost as much as a team of dogs—by the Guilyaks, and the custom dies slowly. Parents buy girls of four or five years old and marry them forthwith to their sons.

Gradually these things change under the missionary impact of the Soviets. Witch-doctors give place to scientifically trained medical practitioners. Education comes. The smoke-fouled hut passes. The new wooden house takes its place equipped with sewing-machines, samovars, and modern furniture. Horses and cows appear on Guilyak farms. Agricultural science and complex agricultural machinery help the farmer to increase the yield of his field. Idleness is shunned and pilloried. Vast moral changes take place.

Of the 50,000 inhabitants of Sakhalin, hardly 5,000 have been born on the island. The rest have come in groups from many regions in the U.S.S.R.: fishermen from Astrakhan, sailors from the Black Sea, peasants from the Trans-Baikal, farmers from the Ukraine, and oil-sinkers from the Caucasus.

In 1933 Maxim Gorki received a letter from the Soviet children in Sakhalin:

“Your letter” [he wrote in reply] “is a gift I treasure as I would an Order. I have received letters from the children of Europeans. Their letters gave me great

pleasure, of course, but they did not move me as deeply as the letter you, the children of Guilyaks, Tunguses and Orochans, sent me.

“ It is not surprising that European children can read and write; what is surprising, and sad, is that some of them are still illiterate. You, however, are the children of tribes which had no written language; your fathers were beaten and plundered by Russian and Japanese merchants; two-legged beasts deceived your fathers and kept them in ignorance. . . . ”

“ And now you are learning. In a few years you yourselves will be teachers and leaders of your tribes; you will open before them the broad radiant path to the universal brotherhood of the working people of the whole world. There is great joy both for you and me in that.”

5. ESCAPE FROM THE GHETTO

JEWS PRESENT a problem in every land. Disliked, persecuted, or oppressed to extermination in other lands, in the Soviet Union they entered a new life when, on August 8th, 1918, an early decree of the Soviet Power dealt its first blow at anti-Semitism and opened the door to a political and economic equality which bears its fruit now in social dignity. The Jews' gifts for humanity are incalculable.

Tsarist Russia dealt ruthlessly with all national minorities. The Jews were no exception. In my parish, years ago, there lived a Jewish lady, mother of a distinguished British architect. As a young girl, she alone survived a Russian pogrom in which all her family were killed. The horror of that day lingered all her life. Victims of bloody pogroms and legal disabilities, barred from factory and driven from the fields, 6 million Jews in old Russia lived in terror of life and property.

Jews had no schools where Yiddish was taught. A small fraction only of total university places were allotted to Jews. However clever the Jewish lad, once the quota was filled, that lad and others remained outside: be he as brilliant as Einstein, his chance of entering a Russian University yesterday would be as slender as the chance of Jesus of Nazareth entering Germany today. Jews were forced to live in "the Pale", a small and miserable locality allotted to those of Jewish nationality. Only a handful of wealthy and professional Jews were permitted in Moscow.

To wander outside the "Pale" was to be an outlaw. W. P. Coates, in "From Tsardom to the Stalin Constitution", quotes Schneiderman, a former blacksmith, thus:

"I worked as a blacksmith for forty-eight years, and nearly the whole of my life has been spent in Zhvanitz. Once I was summoned by the landlord to repair the carts for him. I worked a whole day and I earned two rubles.

... On my way home I was met by a peasant. 'Where are you coming from, Jew?' he asked me. I told him.

"'Jew, come to the constable. Don't you know that Jews are not allowed to roam the villages?' I begged him to let me go. There were only three kilometres left to Zhvanitz. But he was adamant. I gave him the money I had earned, for if he had taken me to the constable I should have had to give my earnings away anyhow, and should have stayed overnight in a cell into the bargain.

"I walked on and within ten minutes the same story was repeated. I had to part with my last ruble. I had so dreamed of spending a good and comfortable Sabbath with ample food for my family. Things turned out differently, and what is more, on the road I was beaten up by drunkards and barely managed to reach my house at dawn. We were not considered human in those days."

Lenin's attitude was clear from the first. Writing in 1913 on a measure put forward in the Duma by the Bolshevik group of Deputies, with the object of removing the Jewish disabilities, he said:—

"The school, the press, the Parliamentary Tribune—everything and anything is being utilized in order to sow ignorant, evil and savage hatred against the Jews. In this blackguardly business there engage not only the scum of the Black Hundreds, but also reactionary professors, scientists, journalists, deputies, etc. Millions, even milliards of rubles are spent in order to poison the mind of the people."

Stalin's attitude was equally unmistakable: "Communists," he writes, "as consistent internationalists, cannot fail to be irreconcilable and sworn enemies of anti-Semitism."

Jews are the world's standing problem. The Soviet Union has found its best solution.

In the Soviet Union no racial or national discrimination is made against the Jews. Economic, social, and political

equalities have been granted to Jews. Among the Soviets Jews are free to live where they choose, free to enter universities, free to work in factories, free to work on the land.

In the Crimea and in Southern Ukraine my travelling companions for awhile were three young and cultivated Jews from New York City. One object of their journey was to study the state of the Jews, in Odessa especially, one-third of whose population is of Jewish nationality. The gaiety of these American Jews in a land where colour bar and racial bar have gone for ever was eloquent beyond any words they spoke.

Jewish workers in factories and on the land in the Ukraine, in the Crimea, in Moscow, in Georgia, in Baku, and in Siberia have proved their fitness and capacity. It is now clear that Jews can, given time and opportunity, master industrial and agricultural tasks as readily as men and women of other nationalities.

The question of land settlements had been raised from the earliest days of the revolution. Jewish colonies had been formed in that most lovely place, the southern shore of the Crimean Peninsula, a spot famed for its health resorts; also in the Ukraine. The 2,000,000 Jews who had been drawn into agriculture had already effectually exploded the old lie that Jews were by nature unsuited to the land or the factory. They are only as unsuited as a child might be described as unsuited to swim who had never been permitted to enter the water.

Given a fair field, the Jew can excel in most things, as other people excel. Here is an instance. In the Azov-Black Sea Territory a meeting took place between the collective farmers of the Novo-Zlatopolsk District of the Dniepropetsk Province, who were Jews, and the Cossacks of the Tsimiyansk District. After the conference came a horse display and a competition given as an entertainment by 300 Cossacks, world famed for horsemanship. Berdishev, a representative of the Jewish district, ventured to join in. Setting his horse at the hardest jumps, he took them with such consummate ease that the Cossacks, once the sworn enemies of the Jews and noted for their anti-Semitic brutality,

cried out, "A real Cossack, a real Cossack", in their spontaneous admiration.

In order to assist them to develop their own language and national culture, the Soviet Government have given to the Jews the District of Birobijan in the Far East, where the Amur River joins the Ussuri, some 250 miles from the Pacific Ocean, an area twice the size of Palestine, a land as large as Holland and Belgium put together. In Birobijan the Jews begin to build up the first and only Jewish autonomous territory in the world, with Yiddish as the official language in schools and public life.

Of course they make mistakes. Nor could every Jew who made the experiment readily undergo the hardships of colonial life, especially in the earlier stages. Birobijan, though potentially rich, was as yet an untouched, untamed land, though the fact that it had its difficulties was an advantage in several ways. For Birobijan was a gift which displaced no former inhabitants. It was a gift which gave ample scope for a willing and determined people. It was also a gift which challenged the character. Nature never surrenders her wild spots to men without a struggle. The grit of the pioneer was bound to be tested. Raw marshes awaited conquest. Men and horses floundered in bog and mire, tormented by myriads of midgets and assailed by the stabbing stilettos of poisonous mosquitos. Many, after making the experiment for awhile, gave up the struggle, as little fitted for rough tasks as the shoe-makers, tailors, or small shopkeepers of England would be to tame the wilds of Canada. They lost heart and returned.

The majority, however, remained, and won the victory in the conflict with Nature, and now the face of Birobijan changes. Saw-mills hum and scream. Roads pierce the forest. The quartz rocks yield their gold, the mines their coal, the quarries their marbles. Within ten years an electric power-station has been erected, and a standard-house building works, a furniture factory, a saw-mill, and a lime-works. The 42,000 acres under cultivation in 1929 reached 100,000 acres in 1939.

You will not find the shrinking, downtrodden Jews of the Ghettos in Birobijan. Jewish settlers have proved in

Birobijan as well as elsewhere their ability to till the soil as skilfully as Gentiles. Jewish collective farms are profitable and flourishing. The little artisans, petty shopkeepers, and small middlemen who remained and fought the battle through have become proficient farmers: scores of collective farms, admirably managed and fully mechanized, have increased the wealth, output, and stability of the Republic. Many collective farmers will now earn ten rubles a day in cash besides their divisible share of grain and vegetables. Yesterday, they struggled along on a ruble and a half a day.

Scores of witnesses speak of these successes. Take this for one: Grigory Kostel, a Ukrainian railway worker, writes in the *Birobijan Star*:

“ I confess that I myself once considered the Jews to be mostly artisans. I believed that it would be exceptionally difficult for them to learn new professions. But from the very first I found that I had been mistaken. The Jews plunged into the struggle with the taiga and learned how to build and farm. I myself taught my own profession to more than ten Jews, and I can vouch for them all as splendid railway men.”

Cultural activity keeps pace with material advance. One hundred and four Jewish schools and four Jewish technical colleges have been opened. The State allotments for the construction of public, municipal, and cultural institutions have increased from 300,000 rubles to 11,500,000 rubles.

A new theatre, a new children’s music and ballet school, a new park of rest and culture, standing where yesterday marsh-birds flew and wild beasts roamed, are the pride of the city of Birobijan.

Nationalities mingle and dwell as freely in Birobijan as in any land on earth, for Russians, Ukrainians, Chinese, and Cossacks no longer shun the Jew, nor he them.

BOOK VI

MENTAL AND SPIRITUAL HORIZONS

- 1 Towards the Fully Developed Man
- 2 "The Most Democratic Constitution in the World"
- 3 "Love is the Fulfilling of the Law"
- 4 "From the Spark to the Flame"

I. TOWARDS THE FULLY DEVELOPED MAN

THE SPREAD of education, the new leisure, the new zest for life, and the new security show themselves in a rising level of national culture. A seven hours' working day—the shortest working day in any industrial country—sends the worker home at an early hour and with a reserve of energy for other occupations. A lengthening annual holiday with pay lays up a store of strength and, through the opportunity it affords for travel, leads often to a wider outlook upon life. Insurance against sickness, infirmity, and old age removes the strain from brain and nerves, whilst the ban upon exploitation and the decreased incentive towards, and opportunity for, the development of the acquisitive instinct set men and women free for higher pursuits.

One immediate result, as we have seen, has been a new passion for reading. This is met by periodical literature and book publications.

Immense progress has been made in the press, both in quantity and quality. The Tsarist Russia of 1913 possessed 859 newspapers with a circulation approaching three million copies. The Soviet Union of 1937 possessed 8521 newspapers with a circulation of thirty-six million copies.

No less remarkable has been the progress in book production and book circulation. At the end of the First Five-Year Plan book production in the U.S.S.R. was greater than that of England, Germany, and Japan taken together.

So great is the quest for new books that one book shop in Moscow sold 1000 copies of a new edition of Leo Tolstoi's *Resurrection* in a single day: 600 copies of Pushkin's works issued in a single volume were sold in under three hours.

Tsarist Russia, in its peak year, 1912, published 133.6 million copies of books: the U.S.S.R. in 1937 published 571 million copies. In 1938 the issue was to be 700 millions.

During the twenty years from 1917 to 1937 Gorky's works have appeared in thirty-two million copies; Pushkin nineteen

million; Tolstoi fourteen million; Chekhov over eleven million; Turgenev nearly eight million; and Gogol six million.

Naturally political writers and books reach astronomical figures. Eight thousand classical works of Lenin-Marxism have reached a total of 350 million copies in the past twenty years. Half of these 8,000 titles were in the national languages of the U.S.S.R.

The growth of literature among the national minorities is simply amazing when one compares it with the rigorous repression of all minority self-expression under the Tsarist regime. The Moscow International Book House, one house out of many, publishes books in eighty-five languages, text-books, novels, fairy tales, technical works, or translations of the classics. Nine million volumes were published in the Ukraine. Tolstoi's work is in great demand amongst the national minorities as well as in Russia proper; 61,000 copies have been published in the last year in the small republic of Armenia.

The abstruse works of Professor Einstein have scanty sale in most lands. Germany banishes the man. The sale of Einstein's books in England would, I imagine, be reckoned more readily in hundreds than in thousands. Yet in the Soviet Union the circulation had reached 55,000 between the years 1927 and 1936.

The value placed on books in the U.S.S.R. is seen in the way it houses them. The new Lenin Library in Moscow, an immense and stately building not far from the Kremlin, contains shelves which, set end to end, would stretch from London to Cambridge, and though the place is so vast, a book can be delivered to a reader in any part of the building in the briefest time. The State Librarians ransacked the world for the most efficient library methods, and then improved on all by methods of their own.

The New York Public Library moved 500,000 books and took two months to do it. The twelve million volumes of the Lenin Library were transferred in three months without the interruption of a single day of reading.

In literature, as in music or art, the Soviet people look across the frontiers. They are the heirs of the ages.

Shakespeare is theirs, Goethe is theirs; Balzac, Moliere, Schiller, all are theirs. In the land of his birth, the 375th anniversary of Shakespeare passed unnoticed. Throughout the Soviet Union his anniversary was recorded in book, journal, and theatre, and his memory honoured by hundreds of thousands of peasants and artisans.

Shakespeare is regarded as a component part of the culture of the Soviet people. He comes into his own in a country where culture has become more truly of the people. Thousands of workers' amateur art circles are working on Shakespeare's plays, producing "Hamlet", "Macbeth", or "Romeo and Juliet". The performance of "King Lear" was attended by 200,000 people in Moscow this spring. And the peoples of Kirghizia, Kazakstan, Bashkiria, and many other national republics besides can see his plays performed and read his books in their own tongue. In the small republic of Armenia 32,000 copies of Shakespeare have been sold in the last five years.

Foreign writers in general are extensively translated and widely read, Upton Sinclair, Maupassant, Victor Hugo, Anatole France, Balzac, Dickens, Darwin, and of the moderns Ernest Hemingway, H. G. Wells, Frank Norris, Lion Feuchtwanger, Heinrich Mann, Justar Regler, and Arnold Zweig.

Writers are not only read, they are created. The Soviet Union gives ample play and great encouragement, both consciously and unconsciously, to self-expression.

More than 100,000 "circles for self-expression" have been formed quite recently in the U.S.S.R., and the drama circles have upwards of two million members. Other circles for singing, music, dancing, or graphic art exceed five million members.

Still wider is the range of self-expression in the form of letters and articles to newspapers. Each factory and institution has its wall newspaper, which invites and receives contributions and elicits valuable suggestions and ideas for the better conduct of factory life and efficiency: men and women can and do write concerning corrupt and inefficient officials, as well as contributing positive suggestions. The wall newspaper is an outlet for social passion.

It was social passion that produced the magnificent style of William Cobbett, and it is social passion, positive and negative, that may create new forms of writing in the U.S.S.R.

Miss A. L. Strong tells how she attended, in a northern township fifty miles from a railway, a congress of some 200 rural press correspondents preparing for a sowing campaign. They were only part of the energetic writers of that township. Four hundred and seventy field brigades each had its wall newspaper:—

“One picturesque seventeen-year-old boy, in a vivid shirt of old rose sateen under a black jacket, proudly reported the overthrow of the corrupt management of his collective farm by his articles and editorials. ‘We got out nine members’, he explained at the meeting, ‘then we stopped for want of paper. But we had already aroused the farmers and the general meeting removed the president and two members of the management.’”

The factory paper is thus the gateway through which many Soviet writers enter the higher realms of literature. It creates a taste for literature and an understanding of literature. From these humble beginnings literary groups arise, and factory print-shops will produce books of verses, plays, or even novels written by factory workers.

It is an accepted maxim in Soviet art that the artist should be immersed in the constructive life of his country. As the engineer who builds a bridge should understand not merely the space to be bridged and the strains and stresses of his structure, but also the purpose the bridge is to serve and its social function in relation to the whole of life, so with the artist. He must be immersed in the life and work of the people. Most artists readily agree with this, and it is natural to find that Sholokhov, the writer of “Quiet Flows the Don”, makes his permanent home in the village whose changing life forms the basis of his work.

Soviet readers look outward, and like their writers to look outward too. There is little demand for the introspective writing of the west. That is natural with a people in the full flush of a vast new experiment. A vital people

wish to know about the hero who explores, invents, learns, and achieves; they have little interest in the man whose eyes turn inwards to his own emotions, much interest in the man who is thrilled with the conquest of Nature and the creation of a new man and a new humanity.

Perhaps most fruitful of all is the encouragement of artists amongst the national minorities. National bards—for example, the men who recite or “tell” their tales, rather than write them—are sought out and encouraged. Folk orchestras and folk instruments are developed and many honours for local distinction awarded.

These things are most important stepping-stones to a wide diffusion of culture. Native art, springing through centuries from the soil and taking forms characteristic of the place of its birth, is capable of indefinite and beautiful development. As plant-forms were collected by Soviet scientists in the place of their origin and developed to the enrichment of Soviet agriculture, so Soviet culture may be expected to advance in many new and interesting directions from the fostering of these primitive art forms. And this applies to the graphic arts as well as literature. Palekh painting, for example, which was rapidly becoming extinct, has been vigorously revived. The old sense of colour, bright and strong, is fostered, and we begin to see many timely antidotes to mere machine production.

Drama is in an exceptionally favourable position in the U.S.S.R. No country renders its theatres such generous financial assistance, nor awards them so high distinctions.

When the Moscow Art Theatre celebrated its fortieth anniversary in September, 1938, it was awarded the Order of Lenin, and all the staff, including workers as well as artists, went to dine with Stalin.

The actor who took the part of Othello was allowed, and encouraged, to devote two years to the task of getting inside his part, an instance of the fact that dramatic art is taken with supreme seriousness and rises to the highest levels.

The opera and the ballet are as beautiful and serious as the theatre.

A renaissance in art is doubtless proceeding in the Soviet Union akin to that which took place at the Renaissance in Italy and at the Revolution in France. We are too near to it as yet to realize its full significance.

Of course there is the question of the freedom of art in the Soviet Union. Criticisms can be made in many directions, and have been made, and should be weighed. Here, as elsewhere, I have preferred to signal out what seem to me to be the new and creative elements in Soviet theory and practice; others in plenty have added the criticisms.

We might in this connexion, however, profitably weigh the words of the American musical critic who said, "The security and inspiring environment of Soviet musical composers make them the envy of their colleagues everywhere". It is security and stability which give the basis of freedom, and an exhilarating environment gives an incentive to the exercise of freedom in the creation of new art forms. And if the Soviet Union has at times appeared to thwart, or at least discourage, new art forms which it felt to be dangerous to the national stability, that was because the stability of the Government against foes without and within was not yet achieved.

England was never more free than when unthreatened and supremely strong. It is today, when threatened on every side, that films like "Professor Mamlock", or plays like "Green Pastures" are banned by the censor.

As the Soviet Union grows more secure we may well suppose that its freedom will grow more generous.

But even today it is only one section of the Soviet artists who feel thwarted. Artists whose life had been lived in a former order naturally feel the constraint of an order with which they are unfamiliar and unsympathetic. But in general it is perhaps true to say that the art of these artists is not in general desired. The censorship which refuses to publish it only acts like the reader of an English publishing firm whose function is to gauge what the reading public demand and what consequently may be published without incurring financial loss.

Censorship, however, differs in the Soviet Union from censorship here. There is no exact parallel to our Lord

Chamberlain. At any rate it is the censorship of the public that counts for most. An artist and his public are brought, as it were, face to face. An artist, be he graphic artist, literary man, or dramatist, is expected and encouraged to meet his audience, to explain to them the principles of his artistic production, and to receive their approvals and criticisms. The artist has something to gain by this process from the workers, and the workers from the artists. Mutual criticism and mutual explanation is of value.

For the rest, artists receive an encouragement unknown here. They have a public ready made. They appeal to an intelligent and interested people. They find ready help and co-operation from the members of their craft. Writers, actors, and painters have their own organizations which give help to their members on a new and generous scale. They have club-houses for social contact, retreats for rest, factories for supply of the materials they use, and negotiators who arrange for large-scale work such as decorating factories and institutions. The isolated craftsman is merged into a rich and powerful co-operative union with his fellows.

There is one word more than all others on the lips of Soviet people. It is the word "culture". It covers all that is here meant by the same word, and much more. It is uncultured, for instance, to walk into a house with dirty boots, to neglect to brush one's teeth or wash behind one's ears. It is uncultured to neglect books and art or ignore the achievements of science.

If we are apt to smile indulgently at the strain that is put on so small a word, we might reflect on our own use of it and examine our satisfactions in the light of our limitations of the article itself. We speak of men of culture. We speak of the cultured classes. The Soviet people limit neither the word nor the thing for which it stands. The Soviet people have no cultured classes and seek none. They seek a wholly cultured people, and in order to arrive at that result they seek to give leisure, security, and opportunity to all. And, in this connexion, art is not regarded as a thing in the abstract or the thing of an esoteric circle. Art is the national heritage of each, and must be made available for all.

2. "THE MOST DEMOCRATIC CONSTITUTION IN THE WORLD"

ON DECEMBER 5th, 1936, a new form of democracy was born into a world where tyranny in the form of fascism openly scorned the democratic idea and threatened the democratic states.

Democracy, torn up by the roots in lands called democratic, was welcomed in a land which, so we were taught, had put its faith in dictatorship.

This is only paradoxical to those who accept the unwarranted assumption that fascism and communism are equally pernicious forms of dictatorship. They, as a matter of fact, are poles apart.

The Dictatorship of the Proletariat is the dictatorship of a class, not of an individual; and it is temporary not permanent.

The Dictatorship of the Proletariat is the dictatorship of the working class, who have changed places with the previous governing class. Where formerly the minority held the power, the majority hold it now. The proletariat were led to victory by the Communist Party, that closely knit order in which the working class became, as it were, conscious of its own aspirations and made its own demands.

The Communist Party continues to exercise power, and will do so until—as is actually now happening—the workers are able, in ever-increasing numbers, to exercise power on their own behalf. "Every cook", said Lenin, "must be taught how to govern." And that principle is dominant still. The Communist Party strives in season and out to awaken in the masses a sense of responsibility and then equip them to discharge it.

Again, the Dictatorship of the Proletariat is only a temporary phase, a means to an end. The Dictatorship of Fascism is permanent. The fascist leader is deified. He is part of an eternal order. He is an end and not a means. The fascist dictator works for stability of dictatorship; the Dictatorship of the Proletariat looks for and works for a day when all dictatorship shall cease.

The completed socialist system of society automatically creates the classless society, and with the abolition of classes the need for one class to predominate ceases.

That stage has been largely completed within the brief space of twenty-one years.

But that is not the end; the socialist phase of society is only a stage on the road to a communist state of society, when, in the words of Engels, "Government over persons will be replaced by administration of things and the direction of processes of production. The State will not be abolished. It will wither away."

That is the definitely higher State at which the communist aims. When the condition of its fulfilment—an abundance of wealth for all—is satisfied, then it will be possible for the new society to use the noble words of Karl Marx in his *Critique of the Gotha Programme*: "from each according to his ability, to each according to his need."

Such in elementary form is the communist theory, and in his "State and Revolution" Lenin sets this for the goal of ultimate freedom and true democracy:

"Only in Communist society, when the resistance of the capitalists has been completely broken, when the capitalists have disappeared, when there are no classes (i.e. there is no difference between the members of society in their relation to the social means of production), only then 'the state ceases to exist', and 'it becomes possible to speak of freedom'. Only then a really full democracy, a democracy without any exceptions, will be possible and will be realised. And only then will the state itself begin to wither away due to the simple fact that, freed from capitalist slavery, from the untold horrors, savagery, absurdities and infamies of capitalist exploitation, people will gradually become accustomed to the observation of the elementary rules of social life that have been known for centuries and repeated for thousands of years in all school books; they will become accustomed to observing them without force, without compulsion, without subordination, without the special apparatus for compulsion which is called the state."

That is perhaps Utopian. Its attainment at any rate may take centuries of socialist education. Who dare deny its possibility? What true democrat would deny its desirability?

Let us, however, return to the Soviet socialism, which at any rate is a necessary stage on the road to communism, and which has made possible the new form of democracy which is now embodied in the Stalinist Constitution of 1936.

The Stalinist Constitution has had predecessors and differs from them. It makes no apology for the difference. A constitution, in the Soviet Union, is not a static thing. Society is not static. Society grows. A constitution suited to the conditions of yesterday is inadequate for today. Constitutions are not the strait-waistcoats of society. Constitutions record the stages of a society's growth. They may go even further than the mere recording, and, if based upon a true reading of the laws of social development, may speed the growth which leads to their own more speedy supersession.

Thus the first Soviet Constitution of July 10th, 1918, served its day and made way for the second Constitution of 1924, based on the newly formed Union of Soviet Socialist Republics.

The present Constitution is the third and best, and stands in a worthy line with our own Magna Carta and the democratic Constitutions of France and the United States.

This Soviet Charter of Rights guarantees to each citizen

The Right to Work

The Right to Rest

The Right to Education

The Right to Material Security in old age and sickness.

Nor are these substantial and comprehensive rights a mere pious aspiration to be given effect only when circumstances conveniently permit. They are rights which record facts, rather than adumbrate goals. And the society which possesses them, and possesses also the land and the means of production which make them possible,

has laid the firm foundations of a really healthy and fully equalitarian democracy.

Nor is that democracy confined, as is ours, to one section of the Union. These rights are extended to men and women of every race, tongue, and colour: Article 123 states that

“ The equality of the rights of citizens of the U.S.S.R. irrespective of their nationality or race, in all spheres of economic, state, cultural, social and political life, is an indefeasible law.

“ Any direct or indirect restriction of the rights of, or, conversely, the establishment of direct or indirect privileges for citizens on account of their race or nationality, as well as the advocacy of racial or national exclusiveness or hatred and contempt, is punishable by law.”

No people is free which possesses an inferior class, and no people is free which oppresses another people. These are truths which the communists embody in their fundamental laws.

These wide and universal rights find fitting expression in equally wide and unequivocal electoral rights. Every individual of every race, colour, tongue, or creed, and of both sexes from the age of eighteen years and upwards, possesses the right to an equal vote, a direct vote, and a vote by secret ballot. Priests may vote. Officials of the former Tsarist regime may vote. All may vote. No franchise in the world is so wide as the franchise of the New Stalinist Constitution.

Is it, then, a bogus franchise? Is it a mere paper constitution?

Many criticisms have been levelled against the 1937 elections, and from a British point of view an election without opposition parties sounds ludicrous and ominous. Most of the criticisms, however, have either ignored or suppressed certain significant facts.

First, the popular selection had taken place prior to election. The deputies who stood for election had been nominated and chosen at public meetings before the general election. Various candidates had been put for-

ward and their claims weighed with the utmost care by the people at large, and generally in enthusiastic and well-attended meetings. An elector may signify his approval or otherwise at an earlier stage for this candidate or that. At the final election he may still withhold his vote from the man or woman put forth ultimately as candidate.

Secondly, these nominations were not confined to the Communist Party. Party and non-Party members alike were put up and many non-Party members were elected.

Thirdly, the deputies chosen were widely representative of public life in general: shepherds and milkmaids, engineers and turners, writers and teachers, artists and academicians, soldiers, sailors and airmen, new intelligentsia and old Bolsheviks.

Or yet again, if there is no Opposition Party—a feature so familiar in our own parliamentary organization—that is largely due to the fact that the basis of such Party opposition no longer exists in the U.S.S.R. The working-class opposition to a governing class, or of a possessing to a dispossessed class, which constitutes in one form or another the basis of most of our own parliamentary oppositions, has gone in the U.S.S.R. and, we may well hope, gone for ever.

There is still room—doubtless there always will be room within a socialist society—for divergence of policy, economic or social, even when the fundamental question of whether society shall be socialistic or not is settled, and it is to be hoped that, with a growing stability, there will be a growing freedom to express and discuss such divergences and seek free and authoritative expression of popular opinion upon this policy or that. Such opposition cannot be created artificially for the sake of preserving ancient forms of parliamentary procedure: it must arise naturally or not at all.

A learned student of political trends points out to me a number of factors relatively unimportant in themselves, but of great significance in the light of Soviet development, indicating that Stalin deliberately intends to guide the Soviet people to real forms of democracy.

First, the removal of political power from the Komsomols

—that is, from the Young Communist League—when they were challenging the Party itself as an organ of political power.

Secondly, the continuing emphasis upon non-Party people and the repeated assertion of their right to share full powers with the Party.

Thirdly, and more important still, the determination to make the Executive subordinate to the Supreme Soviet, which is the equivalent of our own Parliament. All actions of the Executive must be ratified by the Supreme Soviet: "The highest organ of the state", runs Article 30, "is the Supreme Soviet." The significance of the enforcement of this law will be apparent at once to those who see with alarm precisely the opposite tendency here, as, for example, when the British Cabinet takes action without consulting Parliament or without seeking immediate and speedy ratification of its action by Parliament.

More significant still is the determination that the Supreme Soviet shall control the Budget. Those who hold the purse-strings hold the ultimate power. The main grievance of India, for example, really turns around the question of control of money, and the chief complaint of Congress lies in the fact that whilst Indians are taxed, Englishmen control expenditure of the money received.

At the recent Third Session of the Supreme Soviet the report of the Budget Commission of the Chambers brought forth criticism in both Houses as to the allocation of the Budget resources, and resulted in modifications before the State Budget was finally accepted.

The real marvel of the new democracy of the Stalin Constitution is perhaps the place where it grows. The former Russian Empire knew nothing of political democracy or political freedom; and just as we judge of the progress of Soviet industry, not against the background of industry in Great Britain or the U.S.A., but against Tsarist industry, so should we judge the new Constitution against the Tsarist negation of democracy. Not in a night or by the stroke of a pen are the forms or the spirit of democracy developed, which in our land were the result of centuries of struggle and experiment, and are by no means yet completed.

And if in some of its forms democracy has seemed to linger, the real wonder is that democracy has come to Russia at all: the culminating wonder lies in the fact that it has come in a form so wide and generous.

And if there is, and the facts seem to substantiate the claim, advance beyond our own stage of democracy, we have less cause for wonder when we recollect that our



John Smith daily reads the papers of Lord Beaverbrook.

society still provides political power according to the wealth of individuals. Lord Beaverbrook and John Smith, for example, may possess an equal right to vote for this policy or that at a general election, and we may think therein lies the heart of true democracy. In reality such democracy is illusory. Lord Beaverbrook, with his wealth and his newspapers, can daily mould the minds of millions and make and remake governments. John Smith's power to put a cross upon a piece of paper in a

secret ballot once in five years is insignificant in comparison, especially when John Smith daily reads the papers of Lord Beaverbrook or some other kindred newspaper magnate.

Political equality demands economic equality. The Soviet Union has it. We lack it. Our democracy, valuable though it is and a thing to fight for—has not the struggle for it helped us to appreciate and hold dear many things like honesty, truth, and mercy which we rightly cherish like life itself?—will never reach its fruition till we follow the Soviet lead and secure for all economic liberty and equality. It will shrink rather than grow as economic inequality increases. The vast fortunes, which enable wealthy individuals to gain so large a measure of control of the Press, already and subtly undermine much of our imagined and vaunted democratic liberty.

The Soviets have laid firm foundations. A new spirit breathes into the lives of millions who yesterday were downtrodden and oppressed, and shows itself in their new forms of government. The profound significance of this advance is only grasped when we remember that in range it extends across a sixth of the earth. True democrats must rejoice in so mighty a victory for the progressive spirit of mankind.

Many hindrances cause the failure of a more general democratic welcome to the new Constitution and all it stands for. The chief of these is ignorance, and ignorance in many quarters deliberately fostered. The spread of true knowledge of what has happened and is happening would destroy the picture of Stalin as an oriental despot. And that picture has been created and is fostered in this country for reasons we can readily understand.

Stalin is no oriental despot. His new Constitution shows it. His readiness to relinquish power shows it. His refusal to add to the power he already possesses shows it. His willingness to lead his people down new and unfamiliar paths of democracy shows it. The easier course would have been to add to his own power and develop autocratic rule. His genius is revealed in the short, simple sentences which enshrine the Basic Law of

the U.S.S.R., where in clear, clean language stands the charter of the new rights of man in the Socialist Society. Here is a document which ranks amongst the greatest in all human documents in its love of humanity and its reverence for human dignity. To read this astonishing document, to compare it with its predecessors, to trace the growth and blossoming and fruitage of what began years ago as a young and very tender plant, gives fresh encouragement to every democrat in every land, and incites him afresh to struggle against every opposition, and in face, if need be, of the most brutal oppression, for that new and richer freedom that all the world's great minds have looked for and longed for.

There is abundant promise, as this new democracy unfolds, for the development of the individual in harmony with society and in an atmosphere of justice and security. When Stalin said: "Our new Soviet Constitution will, in my opinion, be the most democratic constitution of all existing in the world", it was no idle boast, but a plain statement of fact. When these fateful and restless years are past, and when historians have settled down quietly to weigh the facts, there is small doubt that Stalin will stand out as a giant among pygmies, the man who, unlike those smaller men who clutch at power for themselves, trained and guided that great family of peoples that we call the Soviet Union towards the right exercise of power, gladly surrendering to them a power which is really their own as their understanding and ability to use it increases.

3. "LOVE IS THE FULFILLING OF THE LAW"

(i)

RELIGION IN Russia in pre-revolutionary days had long been regarded by liberal and progressive thinkers and workers as a dangerous enemy. It is still seriously distrusted, and, where not openly and vigorously attacked, is discouraged and handicapped. In the early days of the Revolution many suffered martyrdom for their faith, the good with the bad.

For centuries the Orthodox Church had worked hand in glove with the Tsarist regime. Institutional religion had consistently sided with superstition and reaction: it was the confessed opponent of science and education. A boast was made to me in pre-war days that an entirely ignorant man could become a bishop in Russia.

It was inevitable that many adherents of a religion openly reactionary and confessedly unintellectual should oppose the new revolution and side with the interventionist nations whose armies encircled the young republic and sought its destruction. In such circumstances the effort to suppress the Church is no matter of surprise. Marx, Lenin, and Stalin were anti-religious just because they believed that religion had consistently aligned itself with organized injustice. Outrages were committed on the Church in proportion as the Church had become corrupt and wealthy, neglectful not only of social justice, liberty, education of the masses, and social welfare in general, but actively persecuting those who made these things their concern. It is not natural for people to murder priests.

No great revolution, alas, was ever carried through without bloodshed, violence, and brutality. The struggles for liberty in England have their own tales to tell. Terrible things happened in France. Terrible things likewise happened in Russia. They happened on both sides, though the atrocity statistics concerning them have been, as most responsible historians know today, grossly exaggerated.

The attitude of persecution has given way to a measure of tolerance. It is totally untrue to say that the present-day Soviet Union lacks religious freedom. Churches in the Soviet Union may, and do, suffer material disabilities compared with churches in England. They may be denied revenue from land or capital. But that is a restriction denied to all groups or individuals in Soviet Russia. Still more serious, they are denied the right to give organized religious teaching to children outside the family circle, though no restrictions debar instruction there. It is not forbidden to give religious instruction to adults. Press and radio are closed to religious propaganda.

These constitute serious restrictions, but many lands besides the Soviet Union suffer from the like or worse. It has been the subject of constant complaint of Protestants in Catholic lands and vice versa.

On the other hand, every citizen is free to express his or her religious views, and convert others to them. My friend, Mr. Pat Sloan, a Cambridge graduate of distinction, teaching in a Soviet college, and serving as leader of its Trade Union, was taken ill with fever and removed to hospital, where a nurse, who happened to be a Baptist, endeavoured to proselytise him, with no hindrance from the authorities. The Baptist nurse, incidentally, was as severe as any Bolshevik on the Russian Orthodox Church,—saying, “Oh, well, that’s not real religion, that’s false religion.” Nothing, apparently, says Mr. Sloan, in Soviet legislation irritated her save that she desired for the Baptists the same monopoly of the people’s mind as the Russian Orthodox Church had enjoyed before the Revolution.

Another friend of mine lived with a Russian family in Moscow. In the corner of the living-room stood an ikon, and before it burned a lamp.

“Are there believers here?” he asked.

“Yes, a maid from the country who works next door is a believer, so is an engineer who also lives here,” was the reply.

“Then you do permit a profession of religion?” he asked.

“Certainly, why not? That is their own affair,” was the further reply.

No official attempt is made to suppress views such as these, and any group of citizens wishing to conduct religious worship is at liberty to do so, having access to premises free of charge, though responsibility for the pay of the priest and repair and insurance of the building are first charges on its resources.

Some 50,000 priests live today in the Soviet Union. They are as free to vote at the polls as any other citizen.

I could quote, in substantiation of these statements, from my own experience, or from that of a Russian *émigre* abbot from New York, who had visited me in 1937, immediately after his visit to the Soviet Union, where he had travelled without let or hindrance from north to south and in his priestly robes; or from many another source; but let these brief quotations from Mr. Alan Cash, a Canadian traveller and observer, suffice:—

"The congregation (of a church in Leningrad) nearly filled the church, and people of all ages were represented, although most of them were elderly. . . . One of the priests was quite young, but his enthusiasm was patent to all. Passers-by took little notice when the crowd poured out into the street. . . . It was the same in Moscow, where I saw a priest walking through the streets in the usual long grey robes and with his hair rolled up in a knot on the back of his head. . . . At Tiflis I went a round of churches with a young Georgian, who had been in the U.S.A. for many years. . . . St. Simons Cathedral, now more than a thousand years old, had not been damaged in any way."

Mr. Cash tells of a priest at another new church in Tiflis, who

"told us that the priests had been persecuted there considerably, but he did not blame the government. It was due to over-zealous local officials, and as soon as the government learnt what was going on it promptly put a stop to it. The Church, he admitted quite frankly, had taken an active part in anti-revolutionary work and had suffered the consequences. One of his own bishops

had been caught using the church as a mask for anti-revolutionary activities, and this had brought much trouble down on them all. But now everything was right."

The Georgian priest's statement that the Government had put a check on over-zealous anti-religious local officials is interesting in the light of a recent occurrence widely quoted in the Soviet Press.

A Stakanovite girl-worker on a State farm in Siberia was a practising believer. Her anti-religious neighbours felt that, as such, she should not hold important office. Hers was made a test case. It was referred to Stalin himself. And Stalin's decision was entirely in favour of the girl; a decision fully borne out by Article 124 of the New Constitution :—

" In order to ensure to citizens freedom of conscience, the Church in the U.S.S.R. is separated from the State, and the school from the Church. Freedom of religious worship and freedom of anti-religious propaganda is recognized for all citizens."

(ii)

So far we have been concerned with external questions, with the attitude of the Soviet Union to an organized religious body and to members of that body.

A more difficult, but also, I venture to think, a more important concern awaits discussion—the relation of the Soviet experiment as a whole and in its essence to religion as such.

I wish to suggest that communism in its positive aspect is no fundamental enemy of religion, least of all of the Christian religion. In the long run, unless I am seriously mistaken, it will prove to be a true friend in at least one essential particular. It provides society with a new moral base, and is in process of achieving on the "this-world" level those very things that we Christians have too often professed with our lips but denied in our lives. It has struck

the death-blow to an immoral order in which we have tacitly acquiesced.

A misconception concerning the Soviet Union in respect of religion is widespread and must be removed at once.

The use of the words "dialectical materialism" as descriptive of the Soviet outlook is unfortunate for the average English reader. The term "dialectical materialism" is easily confounded with the largely discredited doctrine of "materialism" which had gripped scientists a quarter of a century ago, and which was entirely incompatible with religious belief.

To the materialist, mind and matter are the same thing. To the materialist, mind is merely a function of matter. To the materialist, mind is but an effect, a mode, a property of inert matter.

That belief is now dead. And scientists themselves have had no small part in slaying it.

That belief again, and all that we common English folk mean by the word "materialism", stands entirely apart from what is meant by "dialectical materialism". None, indeed, opposed the materialistic view of life more resolutely than Lenin himself. Lenin said that he knew what "reality" was because he found the same laws working in his own mind that were working in human society, in the atoms and in the stars. The process of life is creative, says Lenin, and the process of life calls for purposeful activity of man.

Lenin's belief in personality as something alive, creative, originating, and dignified, is wholly opposed to a devitalizing and degrading materialism.

(iii)

A passionate assertion of atheism no more means that a man is fundamentally irreligious from a Christian point of view than a passionate profession of belief in God necessarily stamps a man as religious. Much depends upon the meaning we attach to the words religion and God.

Tolstoi, we are told, once asked Maxim Gorky point blank: "Do you believe in God?" Gorky replied: "No."

Let me paraphrase Tolstoi's reply. " You say you don't, and you believe you don't; in reality you do. Every word you write tells me so. It is not what a man says, or thinks he says, but what a man is, that speaks the truth; your whole being tells me you believe in God."

We may here appropriately recall the words of Christ Himself: " Not every one that saith unto me, Lord, Lord, shall enter into the Kingdom of Heaven, but he that doeth the will of my Father which is in heaven."

Not what we say with our lips, or even what we think we believe, expresses our real belief. The orientation of our entire life is the thing that tells the truth, the whole truth, and nothing but the truth. Our life prays more sincerely than our lips.

In a stimulating and suggestive chapter of his " Creative Society " Professor John McMurray puts the matter clearly, bidding us look below the verbal definition of the term God, and religion, and ask, " What are the realities for which these terms stand? "

Is not a real belief in God that which lifts us out of our self-centredness and frees us from our fears? Is it not the power to live as part of the whole of things?

Many of us, unfortunately, whilst calling ourselves religious and professing belief in God, lack any such real belief in God, or hold it half-heartedly and partially. We distrust the world and men, and prove our lack of confidence in the supreme power behind all, by hedging ourselves around in isolation and building up our own security. We are self-centred. We lack real enthusiastic confidence in the possibilities of the world or man, or in the providence which orders both. That is always the danger of professional religion.

And it is of such so-called believers in God that Jesus avers that he will finally say, " I never knew you ". Refusal to act gave the lie to their professed belief.

The disinterested communist, on the other hand, has, I would suggest, recaptured this power to live as part of the whole of things. He believes in what he calls the laws of Nature and the processes of history. He has faith in a power which determines the destiny of mankind. He feels

himself to be an instrument in the hands of a power which is not unfriendly and which is here and now achieving its purpose of creating a true and universal brotherhood of mankind, which he calls the classless society.

In so far as he holds such a belief, a communist has recovered much of the core of real belief in God.

(iv)

The ground cleared by these preliminary suggestions, we can proceed to closer quarters with our problem. Hitherto we have spoken of communism and religion in general. There is something further to say on communism and Christianity.

Geologists and biologists have enabled us to trace the course of the world's development, and select a leading principle as guide amidst the stupendous changes through which life on this earth has passed. It is the principle of organization.

Life as it develops reaches higher and ever higher levels of organization.

This knowledge enables us to estimate in which direction life in the future will move. Life will follow the lines of a more complex and closely knit organization. As change appears to be the one inevitable law of life: change in the direction of higher organization will be the hall-mark of progress.

Living organisms are obviously to be distinguished from a mere mixture of chemical elements. Thus protoplasm, that semi-fluid, colourless, or whitish substance which constitutes the physical basis of life in all plants and animals, is a living organism, very low, but definitely organized as no mere chemical compound is organized.

Every successive upward step has been a fresh advance in the level of organization. The process has culminated in the higher mammals, where the number and complexity and interrelation of parts in the whole reach the maximum.

Organization, however, does not stop when it has reached the stage of mammals. As Dr. Joseph Needham, the Cambridge biochemist, points out, from the complexity

of man, the highest individual mammal, we pass on to a new complexity on another plane, the complexity of the group.

Sociological organization and development must be thought of as continuous with biological.

Furthermore, social organization, when and as it comes, will demand just that same "renunciation of the dominant impulses" which has been necessary in earlier stages of organized life and which at the human stage we call altruism or unselfishness.

Looking back upon life at its lowest ranges, we see this same principle of "renunciation" already operative. The free-living, independent cells out of which all bodies are built up, had, in "renunciation", to give up their freedom ere they could pass into the higher levels of life which are found in those animals whose bodies consist of many cells.

In like manner, if there is to be a higher level of social organization than we possess today, then similar renunciations will be demanded of each of us. We are, as it were, cells of the new and more complex organization, losing something of independence, but gaining far more in the higher level of living to which we have advanced.

We, as individuals, however, are not the last stage of the evolutionary process. We cannot believe that we alone have reached the pinnacle of organization. We in turn need to be united in a yet larger whole. Our present confusion must be turned into future order.

As from our standpoint other ages were ages of chaos, so from a future standpoint will our age appear chaotic. Chaos reigns, for example, in the existence of our many sovereign states, each unrestricted by any moral law curtailing its absolute sovereignty. Chaos reigns in a world where the natural resources and the machinery of production are retained as private property by private men who possess the right to lay down the terms on which alone other men have access to what is their only means of livelihood. Chaos reigns in a world where fierce competition and unregulated profit-making are the twin motives of industrial production.

If there is any force at work tending to remove this chaos, tending to unite the world of men into one whole,

whilst leaving to the peoples composing that world as much as possible of their peculiar customs, languages, art, and literature, limited in national sovereignty, but united in economic dependence, such a force would be completely in line with that growth in organisms which has marked the march of life in the past. Any process of world-planning by collective man who has obtained control of land, natural resources, and productive machinery, who has abolished privilege and approaches a classless state, marks the upthrust of another stage of the evolutionary development. Not one whit the less does it mark the fulfilment of the Christian demands.

This collectivism is inevitable. The Soviet Union has obviously made a great step towards it: both explicitly in its professed programme, and concretely, as we have seen, despite all setbacks, blunders, defects, and crimes—and what nation among us is guiltless of these?—in the practice of its daily life.

Christians should recognize once and for all that economic exploitation, with all its degrading and disorganizing consequences, is as utterly wrong as it is scientifically doomed.

Christians should cease from that *exclusive* concentration on the "other worldly" and mystical elements of religion, through fear of feudal lord or financial capitalist, or established order, or sheer inertia, which makes them condone what they should condemn and condemn what they should welcome. The established order has small complaint against, though real contempt for, the men whose religion is concerned wholly and solely with the things beyond the skies. A true Christianity never permits its contemplation of another world to hinder its joy and duty in this; but draws from an eternal order the inspiration for achievement here. Only a spurious Christianity neglects "living" in the interests of "thinking and contemplation".

Collectivism, in short, is not only answerable to Christian origins—we recollect the early communism at Jerusalem—it begins to create in practical and concrete form what is meant by the Christian term of brotherhood.

Communism, in the Soviet Union, believes in brotherhood and practises it; believes in collective security and

seeks it; believes in internationalism and works for it; believes in peace and hopes to win it. Communism, in the Soviet Union, turns emotional communism into scientific communism.

Covetousness is the greatest foe to the next advance towards this higher organization, and Christianity is the sworn foe of covetousness. Men covet riches because they covet the power, prestige, and privilege which riches bring. The covetous man moves into isolation, hedging himself around in the search for security.

In its very essence covetousness is a denial of God, a refusal to give up the selfish, independent life and seek security in the whole.

That is why Jesus warned men to "take heed and beware of covetousness". That, too, is why St. Paul speaks of covetousness as of something indecent and loathsome: "let it not even be named among you" (Ephesians v. 3). The covetous man is classed with fornicators and unclean persons.

The acquisitive or covetous spirit, in the eyes of St. Paul, is as evil in its nature as is perverted and unrestrained carnal instinct.

The Soviet Union performed an essentially religious act entirely parallel with this Christian abhorrence of covetousness when it cut the taproot of covetousness, freeing men from the bondage of the acquisitive instinct and paving the way for a new organization of life on a higher level of existence.

(v)

If communism cannot be regarded by religious men as the *end* of the whole life process, it certainly appears to shadow a vitally necessary step in religious development.

Communism has overcome the disintegration of modern society by pressing forward to a higher and more complete union of the separated parts.

Communism has at last found a form of integration compatible with the necessities of a technical civilization.

Communism has served religion by challenging the irreligious dualism of Greek thought which separated life

into two parts, religious and secular, thus perverting the religion which we inherited from the Hebrews and which culminated in Jesus. For Hebraic religion, and still more the Christian religion in its original intention, embraced the whole of life. It never suffered life to fall into two parts, signifying that contemplation was the sole and supreme religious duty, condoning the disintegration of society, whilst luxuriating in the thought of the harmonious heavenly places.

Where, to the Greek, God was an aristocrat, to the Christian He was a worker; and, as a consequence of this, where to the Greek the ideal of human life was contemplation, to the Hebrew and Christian it was action and self-realization.

Furthermore, to the Hebrew and to the early Christian, man's welfare depended upon community; his self-realization demanded "renunciation" and subordination to the whole. The intention of God, according to Jesus, is a community of persons building up relationships on a basis of freedom and equality. To violate that sense of community, to realize, or seek to realize, oneself at the expense of the whole, is to court disaster. To act egocentrically is to act against one's nature, and leads to failure and frustration. All history is a commentary and a judgement upon the self-will of man, particularly upon his lust for power and for the luxury of contemplation.

To the communist, as to the Christian, community is paramount. Man realizes himself in society. The communist puts the Christian to shame in the thoroughness of his quest for a harmonious society. Here he proves himself to be heir of the Christian intention.

The communist attack upon idealism, then, as well as the communist struggle for community, contains an element of true religion, and as such demands Christian recognition.

Had Christians from the first but given to communists the welcome which was due to men whose motto—"from every one according to his ability and to every one according to his need"—is so wholly Christian, and who had passed from words to deeds in their construction of a concrete

order based on these principles, Christians would have done more honour to the intention of their Founder, and Soviet communists might never have felt compelled to launch their war against religion. Perhaps they had even been ready to heed the warning which Christians must feel bound to give to all who lightly imagine that a perfected order lies at the end of the social process; or anticipate the creation of a perfect society in which all tensions are resolved.

Such a social order would, indeed, appear to be the end of society, and not a new beginning. Every fresh integration introduces its own tension instead of tensionless perfection.

But it is a tension upon a higher plane. The communist order, now having moved to a higher plane of integration, may well be expected to experience new and newly creative tensions. Such tension should be neither surprising nor disturbing. The Christian anticipates them.

Did it concern our present purpose, we might well proceed to argue that the problems of good and evil, life and death, cannot be solved so easily as some communists would suppose. We could urge substantial grounds for believing that the final fulfilment of life is to be found, not in but beyond history itself. We might further urge that could we succeed even in integrating all human life in this present order, there will still remain the problem of integrating the life of our human order as a whole with the life of the universal order.

That, save for the mention of it, lies, however, outside our present purpose, which in the main is to seek the creative ideas in communism and to examine and estimate their value, and we may appropriately come back to the point at which we began, and urge that communists are right when they insist that we must begin to achieve in practice that integration which already lies within our power, and that the religion which not only refuses to do this but hinders, side-tracks, and misrepresents those who attempt it and then seeks refuge from action in contemplation and reflection, is an enemy, and must be resolutely removed. "He that loveth not his brother whom he hath seen, cannot love God whom he hath not seen." "Love is the fulfilling of the law."

4. “FROM THE SPARK TO THE FLAME”

I CANNOT read or re-read this book without being conscious of its many defects and shortcomings. There is so much more that might have been said or better said. The Soviet experiment, so immense in its range, so revolutionary to all our modes of thinking, so new and challenging, defies all but the crudest outline. A finished treatise, even were I capable of it, is impossible; one can only, as it were, think aloud.

I am conscious, furthermore, as was said in the Preface, of pointing only to those aspects which seem to me to be truly creative and essentially good. Much remains that is not. Injustice and unhappiness have not been swept away over-night as if by magic. Petty deceits, petty jealousies, and petty dishonesties still mar the harmony of life, and ugliness has far from disappeared. Russians are not paragons of virtue, nor is the Soviet Union yet the golden Paradise of the Utopians. The Russians, after all, are human beings, with all the weakness and follies and sins that mar us; and the relics of the past—it is a worse past than ours, where even tentative advance along the paths of freedom and equality has been longer delayed than with us—still hang round their necks.

Yet, when all is said and done, the Soviet people are actuated, in the major operation of life, by a moral purpose which I could wish with all my heart was consciously our own. They are working for a common good that seems to me essentially Christian in its morality, however much they may deny the fact. They are learning in practice that the reality of life lies in community, and their accepted principles for the advance to a better order of society, to a wider community of persons, seem to me to be rightly chosen.

All progress appears slow and uncertain. Our advances towards a better order are vague and indeterminate. Profound and subtle and innumerable forces chain us to our past. We cling to our errors and stupidities. The

bright light of truth blinds us, and we avoid it. We grope where we might walk. Familiar ways are easy ways. Change demands effort and action; and change terrifies; especially if change threatens the structures of our personal security, so laboriously erected.

Yet change must come. Life always moves. Stagnation is but another word for death. Man marches forward, and in the main, and down the ages, he marches towards wisdom. The march may be slow. It is often painful and punctuated with many a halt. Sometimes man returns upon his tracks when an insurmountable obstacle blocks his path. The return is merely the quest for another way round to the distant goal which shall avoid the obstacle. The march goes on, and change comes with it.

This book is an honest and earnest plea to examine with less prejudiced eyes changes that in their startling novelty appear to overleap the centuries. Yet they are changes for which the way has long been prepared. They have their roots in the past. They are like waters dammed up here and dammed up there, but always and steadily accumulating until, suddenly, without warning and with a mighty rush, they burst forth and sweep all obstacles before them.

Change must come in England, in France, in America. No country can stand still. If the line advances in one land, others must advance or they will inevitably recede. England's advance to an industrial order infected all the world. Russia's startling and deeply significant change involves change here and elsewhere. Not necessarily along the same path. We can profit, if we will, by Russia's experience and avoid the destruction of many precious things. If with an honest heart we make the necessary and essential changes in time, we may reach the same end by peaceful means.

One thing at least is certain: change will come, and it is better that we ourselves should make appropriate changes willingly because they are right, than do so under compulsion because we can do no other.

Morally inspired change, however, is far from easy. It needs strong hands, strong minds, and dauntless courage.

It needs clearness of aim and firmness of will. It needs definite creative purpose.

The torch of life rests now in our hands. Those who come after us will be better able than we to judge whether it burns more clearly and brightly or whether it grows dim, whether we have bettered the life of our day or worsened it. They will judge us by our purpose and our effort rather than by our achievement. If there is any moral truth and rightness in the great experiment which I have tried to describe, it will prevail. We may accept it and have the joy of speeding its progress, or we may reject it and suffer personal frustration. But according to the truth that is in it, it will succeed. I endorse the noble words of Anatole France:

“ Truth possesses within herself a penetrating force, unknown alike to error and to falsehood. I say ‘ truth ’ and you understand my meaning. For the beautiful words truth and justice need not be defined in order to be understood in their true sense. They bear within them a shining beauty and a heavenly light. I firmly believe in the triumph of truth: that is what upholds me in the time of trial. . . .”

EPILOGUE

Written on November second, 1939

THE CHIEF reason for writing this book was to further a better understanding of the U.S.S.R. And when I am asked why I undertook this thankless task, my answer is threefold. Because it was necessary to tell the truth. Because it was necessary to understand the experiment which is being attempted on a continental scale by Russia. And in order, in the interests of peace, to influence men's minds in the direction of warmer relationships between Great Britain and the Soviet Union. Without agreement with Russia war seemed inevitable.

Alas, events have moved too swiftly, and war has overtaken us. I had found it hard to believe that our governing class were so blind and stupid as to prefer war to shaking hands with the Soviets. Yet that, in simple English, records the tragedy of this year. The object of this epilogue is to try to correct and cure the distortions, misrepresentations, and lack of understanding of the Soviet Union, in order that, even at this late hour, we may still win the sympathies of that great country and prevent her from moving into a conflict against us.

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See, then, the events of the past years and months if possible, through Soviet eyes. Before the last World War we had the spectacle of the great imperialistic Powers playing at power politics, the essence of which lies in the belief that force—with its attributes of cunning, treachery, deceit, lies, and broken promises—is the only and final arbiter betwixt nations. Power politics implies the absence of good morality. In the realm of power politics, and for the “welfare of the nation”, statesmen will perform acts, pursue policies, and employ methods from which in their private lives they would shrink with horror. Power politics led to the clash of rival imperialisms in the Great War 1914–1918, which shook the capitalist system to its very foundations. Gigantic forces were unleashed, from

which, after untold suffering, the first successful socialist revolution emerged.

For a brief while after the War both peoples and governing classes appeared to have learned a lesson, and the close of the War saw a valiant attempt to put relations between countries on the new moral level of justice, order, respect for law and the abandonment of the use of force in the settlement of disputes. The League of Nations was born.

Of the sincerity of these attempts of the leopard to change his spots, the U.S.S.R. was from the first sceptical. Too frequently the League, alike in its actions and in the utterances of its leading Powers, appeared to be directed towards carrying on, in another form, the wars of intervention against the U.S.S.R., rather than in building up a new peace system.

These wars of intervention had left an ineffaceable mark upon Russian minds, best illustrated by the appeal made to the world's workers by Chicherin, the Commissar for Foreign Affairs of April 18th, 1919:

“ It is none other than your rulers who are keeping civil war alive among us by giving help to counter-revolutionaries and creating hunger and unemployment by the criminal blockade of Soviet Russia.”

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We have heard recently a great deal about “ encirclement.” Who will deny the constant and continual efforts of the great capitalist Powers, more often than not led by Great Britain, to isolate and encircle the Soviet Union?

The Genoa Conference in 1922 and Locarno in 1925 are cases in point. At Genoa the Soviet delegates were informed that their country would be aided to repair the ravages of war and civil war on condition that it gave up its plans for socialism. The same Conference pushed defeated Germany entirely on one side, treating her as a pariah. Germany and Russia, thus thrown together, formed the Treaty of Rapallo, beginning thereby a long series of contacts broken only during the five years, which we shall examine later, when the Soviet Government sought, through

the aid of the democratic governments and to the annoyance of Germany, to make the League of Nations a success.

The Treaty of Locarno banded France, Britain, Germany, Italy, and Belgium together *for* peace and obviously *against* Russia; a secret injudiciously revealed by Ormesby-Gore, a Cabinet Minister, when he said :

“ The solidarity of Christian civilization is necessary to stem the most sinister growth that has arisen in European history. . . . Locarno means that so far as the present government of Germany is concerned, it is detached from Russia and is throwing in its lot with the Western party.”

In fact, the one constant factor in the years between 1917 and 1939 in British foreign policy has been our hatred and detestation of the Soviet Union. Whenever possible we have tried to damage her. We may recall the Red election of 1924 and the forged Zinovieff Letter, with its sequel the raid upon “ Arcos ” and the breaking off of all trade negotiations. Or the Metro-Vick trial of 1933, when we proclaimed our agents innocent when one had already pleaded guilty, and our Ambassador left for London in response to a telegraphic order requesting him to return to England immediately for consultation ; a situation which nearly led to a complete rupture between the two countries.

This incident has a peculiar importance in connexion with the events of the past few months, for the behaviour of Mr. Strang in 1934 to the highest Soviet Court of Justice at the commencement of the trial, surely made him an unsuitable spokesman for England in 1939. Mr. Strang was at that time the diplomatic official who became our *charge d'affaires* when the British Ambassador left Moscow. Was it malignity or ineptitude that sent Mr. Strang to “ speed up ” our talks with the Kremlin in June? The leaders of the Kremlin have long memories.

A review of the past twenty years leaves one astonished at the continued tolerance shown by the Soviet Union. The explanation must surely lie in its own desire for peace as essential for social development, and because it has seen

that, to use Litvinov's phrase, "peace is indivisible"—that once the dogs of war are unleashed no country can remain aloof and untouched.

The Soviet Union has no illusions. It does not want war. Its record for peace is unchallenged and unchallengeable, both before and after joining the League. No single State has been more single-minded and whole-hearted in the quest for peace. Nor has any State encountered more provoking and extraordinary obstacles.

Its historic first decree, issued on November 8th, 1917, the very morrow of its coming to power,

"proposes to all warring peoples and their Governments to begin immediately negotiations for a just and democratic peace. . . . Such a peace the Government considers to be an immediate peace without annexations (i.e., without seizure of foreign territory, without the forcible annexation of foreign nationalities) and without indemnities."

Time and again this proposal was repeated. At the Genoa Conference in 1922, G. V. Chicherin declared that

"the Delegation intended to propose, in the course of the conference, the general limitation of armaments, and to support all proposals tending to lighten the weight of militarism."

Because peace and disarmament are inseparable (as are conversely armaments and war), the Soviet Union persistently put forward, in the face of world opposition and world jeers, its proposals for disarmament. At the Washington Conference in 1921, it declared itself ready

"to greet with gladness any reduction of the armaments, or limitation of the military expenditure, under which the toilers in all countries are groaning".

In 1927, at the Preparatory Disarmament Conference, it made its historic proposal for complete disarmament.

Its efforts to prevent the Disarmament Conference proving an utter failure stand in sharpest contrast with the action of our own delegate, Lord Londonderry, and his successful efforts to retain the use of the bombing plane.

With a persistence and resoluteness which we can only admire in perspective, whilst ruefully regretting our own opposition, the Soviet Union persevered in its efforts to win over and reinforce the position of peace. When the Kellogg Peace Pact was proposed, an attempt was made to keep the U.S.S.R. from signing it. This manœuvre was defeated, and the Soviet Union was the first country to sign the Pact, pointing out, however, its lack of any obligation to disarm.

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In September 1934, on the motion of France, the U.S.S.R. was invited to join the League of Nations, and accepted the invitation. At the same time negotiations went forward for the Pact of Mutual Assistance between France and the U.S.S.R., which Germany was invited to join and which, in fact, was open to all nations.

This "Eastern Locarno" was ostentatiously cold-shouldered by Great Britain. Later, in the February of 1935, when agreement was renewed between Britain and France, we specifically "disinterested" ourselves from Eastern European questions, although how, under the League of Nations, we could do so it is difficult to see. Four years later we "interested" ourselves with a vengeance in Eastern Europe by giving unlimited guarantees to Poland and Rumania. The consequences are with us.

The attitude of the U.S.S.R. to the League in the period subsequent to its joining, and before the League finally collapsed, was meticulously correct, and that in no formal sense. For example, its relations with Italy in 1934 were friendly, if not cordial. A non-aggression pact had been signed in 1933. Yet it did not hesitate to jeopardize these in stigmatizing the aggression in Abyssinia, and in carrying out, even after we had tacitly dropped them, the abortive sanctions imposed on Italy, with the risk of driving Italy, as subsequently happened, into the arms of its opponents.

With regard to Japanese aggressions its action was no less transparently clear. From the first its attitude was one of opposition. Whilst we, through Sir John Simon, acted as advocate for the aggressors. And, whilst the British Empire and the U.S.A. in 1938 supplied Japan with 78 per cent. of

its war materials, none came from the Soviet Union. Assistance was given to China alone.

In Spain the same story is repeated. Whilst we assisted in the murder of the legal Government of Spain under cover of "non-intervention", the Soviet Union fought a lone battle for the observance of international law, and for the unmasking of the German and Italian aggressors.

In issue after issue before the League the Soviets' words and actions are impeccable. To read Litvinov's speeches fills one with an overwhelming sense of frustration and shame.

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Let us remember that the whole policy of collaboration with the League Powers was an experiment on the part of Russia. That it meant the subordination of old fears and prejudices. Let us remember, further, that on her side it is impossible to find a flaw in her words and actions. In that light read Litvinov again (Geneva, September 21st, 1937):

"It may now be considered an axiom that the passivity of the League during the Manchurian conflict had its consequences a few years later in the attack on Abyssinia. The League's insufficient activity in the case of Abyssinia encouraged the Spanish experiment. The League's failure to take any measures in aid of Spain encouraged the new attack on China. Thus, we have had four cases of aggression in the course of five years. We see how aggression, if unchecked, spreads from one continent to another, assuming greater and greater dimensions each time. On the other hand, I firmly believe that a resolute policy of the League in one case of aggression would have spared us all the other cases. And then, and only then, all States would see that aggression does not pay, that aggression is not worth while. Only as a result of such policy will the ex-members of the League knock at our doors, and we shall say to them gladly: 'Come in'. We shall not ask them about their philosophy, and their domestic regimes, because the League of Nations recognizes the peaceful co-existence of any regimes in existence. And then our common ideal of a

universal League, preserved as a weapon of peace, will be realized."

In those words we read not only the tragedy of these past nine years, but also the thing that was to confirm the Soviets' suspicions of our own good faith.

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Finally, there are the events of the past two years. Again, what is the record of the Soviets? Look first at Hitler's aggression against Austria. What did Russia propose?

"First and foremost [says Litvinov] arises the threat to Czechoslovakia, and then, as aggression is infectious, the danger promises to grow into new international conflicts.

. . . The present international situation puts before all peaceable states, and big states in particular, the question of their responsibility for the subsequent destinies of the peoples of Europe, and not only of Europe. I can say on behalf of the Government that, on its part, it is ready as before to join in collective actions which, decided jointly with it, would have the purpose of arresting the further development of aggression and removing the accentuated danger of a new world shambles. It agrees to proceed immediately to discuss practical measures."

That offer was rejected by England on March 24th as 'inopportune'. Similarly, when on May 11th and August 25th, 1938, the Soviet Union stated that it would carry out its undertakings to France and Czechoslovakia, and asked for a "firm stand against the aggressors", the statements were ignored. So also were the suggestions on September 2nd and 11th for a joint declaration of the U.S.S.R., France, and Great Britain in favour of the Czechs and the use of Article 11 of the Covenant. Finally, on September 21st, at Geneva, Litvinov declared:

"We intend to fulfil our obligations under the pact and, together with France, to afford assistance to Czechoslovakia by the ways open to us. Our War Department is ready immediately to participate in a conference with

representatives of the French and Czechoslovak War Departments, in order to discuss the measures appropriate to the moment."

Munich not only administered the final *coup de grâce* to the League of Nations, with an inevitable return to the system of power politics, but also drove the Soviet Union into an isolation which demonstrated to that country the dangers it ran of a Four-Power Pact directed against it by the capitalist and fascist Powers. "I was at a loss to understand", wrote Lord Londonderry, "why we could not make common ground in some form or other with Germany in opposition to Communism."

Soviet patience, however, was still unexhausted. After the final rape of Czechoslovakia on March 15th, the Soviet Government on March 18th proposed a Conference at Bucharest of Britain, France, U.S.S.R., Poland, Rumania, and Turkey. That proposal, had it been accepted, might have prevented the war. It was turned down by our Government on the grounds that it was "premature". Poland went even further, refusing to sign any document with the U.S.S.R.

After this refusal events moved swiftly. Hitler seized Memel. We gave our guarantee to Poland (without consulting the U.S.S.R.), Mussolini seized Albania (April 7th), Britain gave further guarantees to Rumania and Greece (again ignoring the U.S.S.R.). Only on April 15th, one month after Hitler's march into Prague, did we make overtures to the Soviet Union. We invited Russia to give unilateral guarantees to Poland and Rumania. It was an invitation to Russia to "pull the chestnuts out of the fire for us".

Two days later the Soviet Union proposed a joint defensive alliance between England, France, and Russia, consolidated by a military convention, and guaranteeing all States from the Black Sea to the Baltic. No real reply was made to this proposal until May 27th, nearly six weeks later. This proposal remained the only one that the Soviet Union was prepared to discuss. It was, in fact, the only proposal calculated to meet the situation in Europe, as, too late, we now perceive.



Without going into too great detail on the negotiations with Russia, which can be found easily and brilliantly expressed in D. N. Pritt's "Light on Moscow" or W. P. Coates' "The U.S.S.R. and Poland", Britain's policy during the five months preceding the war, whilst we were precariously balanced upon the edge of the precipice over which finally we toppled, was based upon a dual policy, that of keeping the door open with Moscow, whilst attempting still to come to an agreement with Hitler against Moscow. The latter attempt is shown by Mr. Chamberlain's speeches; the attitude of *The Times* (particularly the leaders of April 1st and 18th); the Rushcliffe letter (a plea for further appeasement); the Wohltat-Hudson conversations (for a loan of 500 or 1,000 million pounds to Germany); the visit of Lord Kemsley to Germany, and finally his advocacy on August 20th of a Four-Power Pact obviously aimed at Russia.

The sincerity of our approaches to the Soviet Union can be measured by the following facts. That of the first seventy-five days of negotiations the Soviet Union took sixteen days against fifty-nine by Britain and France; the sneering reference of Mr. Chamberlain to Stalin on May 5th; the almost complete refusal of the British Press to report the vitally important speeches and statements of Stalin (March 10th), Molotov (May 31st), and Zhdanov (June 29th); Sir Horace Lindley's attack, after Chamberlain had "weekended" with him, on the Soviet Union and against a pact with that country, made in the House of Commons to the Foreign Affairs Committee of the Conservative Party. The refusal in June by Lord Halifax of the Soviet invitation to go to Moscow, and the sending of a minor Foreign Office official (whom we must have known was *persona non grata* to the Kremlin, and whose presence could recall only the unhappiest of memories). And, finally, the composition of the Military Mission, all of the same unimportance as Mr. Strang, without any powers, and going by the most tortoise-like route. It took sixteen days for this procession to reach Moscow after our decision to send them. Ribbentrop took sixteen hours.

The final breakdown occurred over the refusal of Poland

to accept Russian soldiers on Polish soil, an appalling example of the arrogant short-sightedness of the Polish governing class, and of the real sincerity of our desires for a military convention.

In concluding the pact with Germany, the Soviet Union in no sense embarked upon a novel and untried line: it merely reverted to the policy which had only been laid aside five years previously in the effort to achieve collective security through the League of Nations. The Soviet Union had already made pacts of non-aggression with many countries. It had indeed been willing to sign non-aggression pacts with all countries, even with Japan if she would have it, in order to lessen the danger of war.

It is not hard to see that Moscow had additional and pressing reasons for making the pact with Germany. There was constant and substantial fear that the Western democracies would seek to make common cause with Germany against her. Russian safety, in view of the repeated efforts of Britain to appease and win Germany, demanded an understanding with Germany.

Naturally the pact brought a shock of disappointment and fear to the Western democracies. The eager cry "betrayal of democracy" was raised, but mainly by those who had consistently denied that Russia could in any sense whatever be described as democratic. Others rashly assumed that the pact implied the renunciation of anti-fascist sympathies, which was as unintelligent as saying that the Franco-Soviet pact implied an abandonment of socialism.

We have the highest authority for stating that there had been no political conversations between Russia and Germany before August—that in fact it was not until the Military Mission went to Moscow that Germany attributed any importance at all to the Franco-British-Soviet negotiations. Then—for the first time, apparently—Germany thought there was a possibility of an agreement. The economic negotiations which had been languishing were renewed, and followed up swiftly with political proposals. What we were not prepared to do in five months, Germany, who never has had the childish illusions about Soviet military power current in this country, accomplished in as many days.

The conversations contained no plans for partitioning Poland between Germany and the Soviet Union. On the contrary, the big mistake that Russia made was in her over-estimation of Polish military strength, so that the quickness of the Polish collapse caught her almost unprepared, and the Soviet Army had to mobilize and march within a matter of hours to prevent the Nazis being on the Soviet borders.

The fiction that it was the march of the Soviet troops that led to the defeat and collapse of Poland is refuted by *The Times* correspondent, September 17th, 1939:

“The Polish front has collapsed completely. . . .”

September 19th, 1939:

“Travellers who have crossed the country during last week report that again and again they have passed motor-cars and taxicabs carrying officers evacuating their families . . . indication enough of the deplorable lengths to which the demoralization of the army has gone.”

October 2nd:

“But that the Russian armies should stand on this line was clearly necessary for the safety of Russia against the Nazi menace.”

The *Daily Herald* Polish Correspondent, on October 2nd, 1939, states that

“the Government lost its nerves when, on the fifth day of the war, the signal was given for a panicky flight from Warsaw. Polish refugees of all political opinions, including those who supported the regime, are now convinced that had the Government stayed on, had the highest army leaders all remained in the country, Russia might not have marched.”

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The collapse of the Polish Government made action by the U.S.S.R. urgent and vitally necessary if further minorities were to escape Nazi tyranny. These minorities, among the most harshly oppressed in Europe, rejoin the majority of their fellow-nationals, and have as much right to be a part of the Soviet Union as Alsace-Lorraine of

France. Lord Halifax stated the case in the House of Lords on October 26th when he said:

“ It is perhaps worth recalling that the action of the Soviet Government has been to advance the Russian boundary to what was substantially the boundary recommended at the time of the Versailles Conference by Lord Curzon, the Foreign Secretary ”,

and a leading article in *The Times* of November 2nd, 1939, rightly observes that

“ it must be recognized that White Russia and the Ukraine are a racial part of the Russian family, and the results of the recent election organized by the Soviet authorities in those provinces may conform pretty closely with the natural feelings of the inhabitants ”.

Furthermore, Russia’s action was necessary if Hitler was to be prevented from dominating the Balkans through direct contact with Rumania. Russia moved across Germany’s path to the Black Sea. It was significant, as the military correspondent of the *Yorkshire Post* observes, that the German bombers had carefully preserved the railway from Lemberg across the frontier, with all its stations, depots, and rolling stock unbombed. And there can be little doubt that the murder of M. Calinescu was timed to coincide with the appearance of German armies on the Rumanian border. Had it not been for the Soviet Union, Rumania would now be under German control, with incalculable consequences to the Balkans, Turkey, the Mediterranean, the Near East, and our own route to India. The march of the Red Army made possible the signing of our pact with Turkey.

Finally, Russia’s action was necessary if Hitler was not to complete his control over the Baltic and the Baltic States. Instead, Russia has, in the words of Mr. Hore-Belisha, inflicted a major defeat on Germany in the Baltic. The *News Chronicle* military correspondent writes:

“ The War Office, I understand, attaches considerable importance to this event. It had always been a substantial element in German strategy to dominate the Baltic Sea. Now it is dominated by Soviet Russia.”

Finally, the Estonian Government sent its "sincere gratitude" for "the new friendly agreements between our states for the further development of their good neighbourly and peaceful collaboration."

The Soviet Union has, in fact, erected an invincible barrier against Hitler in Eastern Europe. It has shut its own doors against war and, intentionally or unintentionally, rendered valuable aid to England and France, thereby making more probable the downfall of Hitler.

Prediction as to the future is impossible and undesirable, but certain things at least seem probable. Stalin has as little intention of pulling chestnuts out of the fire for Hitler as for Chamberlain or Daladier. Peace will leave Russia far stronger than she was before, and, for humanitarian as well as other reasons, the Soviet Union doubtless is sincere in her desire for peace. War between the capitalist and fascist countries, on the other hand, is equally certain to leave the U.S.S.R. stronger, for Western capitalism, with its many internal contradictions, can ill withstand the strain of protracted conflict, and long before the war is ended the face of Europe will be radically changed.

And all the time, be it peace or war, the Soviet soldiery and peasants stand now along the line which stretches southward from the Baltic Sea along the borders of Germany. Russians and Germans are no longer severed by an independent buffer State. Driven to desperation by prolonged fighting, with all its accompanying deprivations and miseries, the workers and soldiery of Germany will not be far removed from a politically educated soldiery and peasantry who know what they stand for: the liberation of the workers and the building of a new society. Dawn breaks over the east. And in that fresh dawn men see the promise of a new world, not a perfect world, and not a Utopian world, but at least a world freed from poverty and exploitation, and with heightened possibilities for all to work together for the common good—and a world where mankind, released at last from much that binds it to the earth, may find within itself a nobler and more enduring goodness and beauty.

